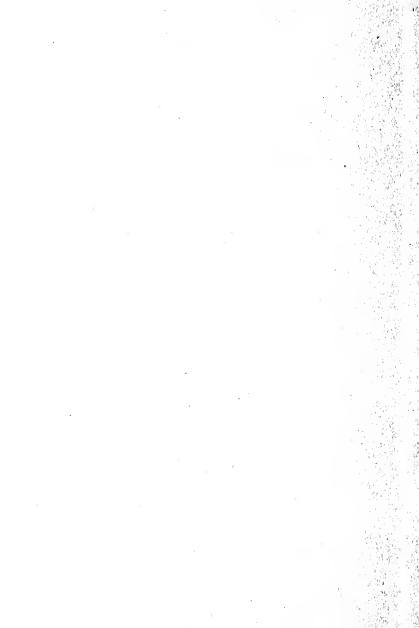
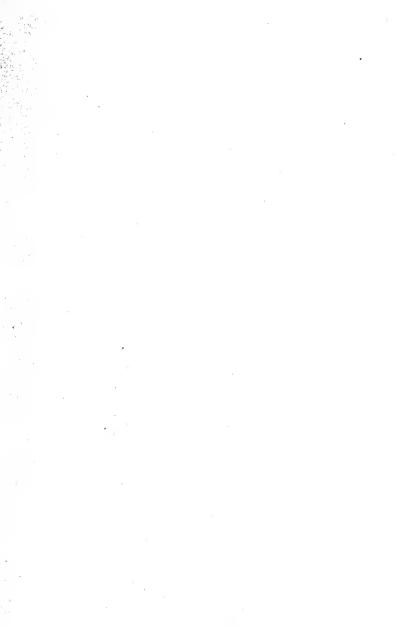
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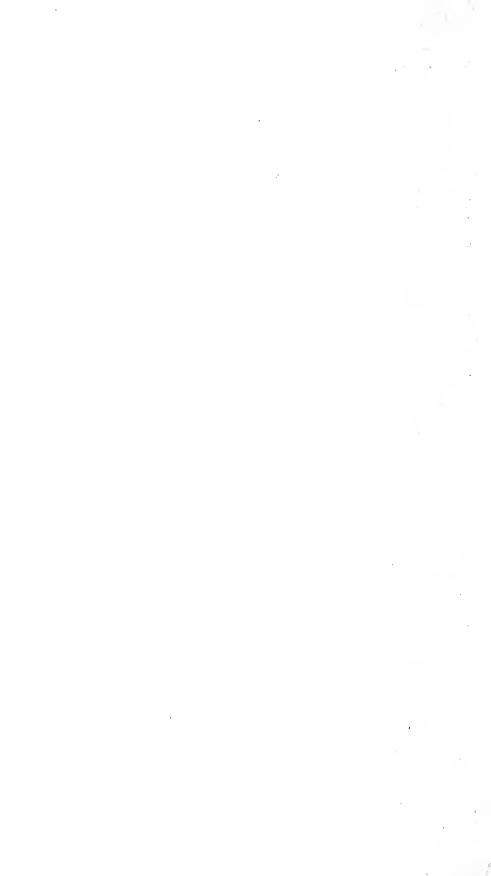
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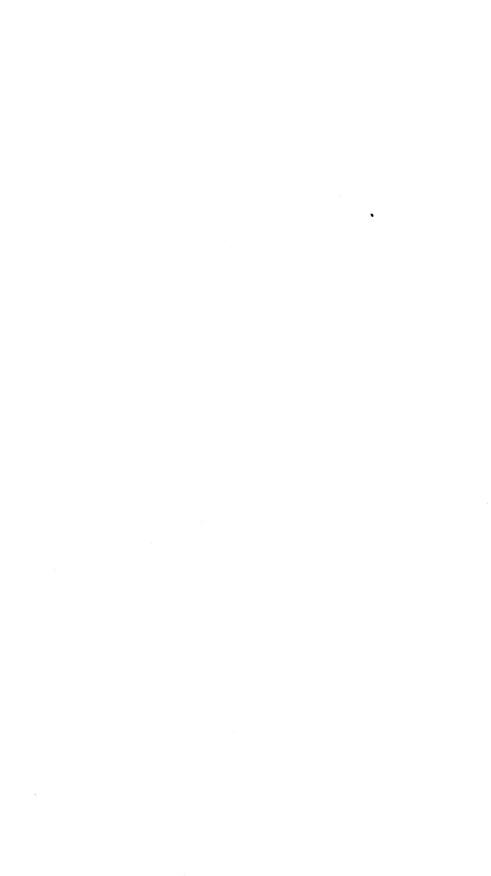


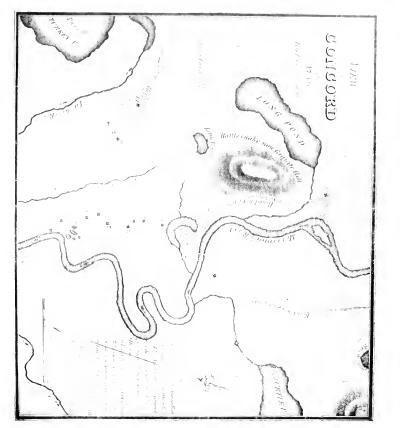


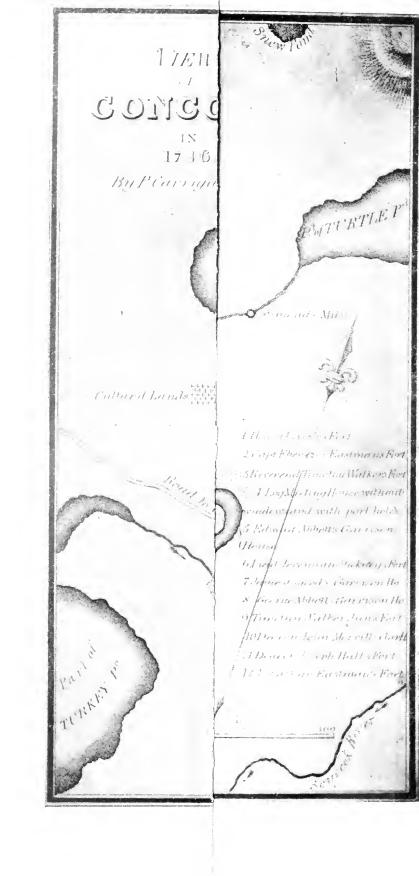
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# The Farm of the First Minister.

# AN ADDRESS

Delivered before the New Hampshire Board of Agriculture, At The Weirs, August 15, 1894.

BY

JOSEPH B. WALKER,

OF CONCORD, N. H.

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# THE FARM OF THE FIRST MINISTER.

Our gallant leader, Captain Humphrey, and his associates upon the board of agriculture, have this year transferred our summer outing from Boar's Head and the ocean shore to ancient Aquedoctan and the placid waters of Winnepesauke lake.

The fact that he has heretofore safely steered our craft along a coast where the headlands are sharp and the east winds often strong, gives confidence in his future pilotage over these placid waters which, coquetting with the mountains, reflect the smile of the Great Spirit by day and the stars which he has set in his firmament by night.

We are here for a good time, but skilled as is our leader, we must not depend upon him entirely for its attainment. Coöperation should be our watchword in the prosecution of our pleasures and all our great interests as well. It was not General Grant alone who forced the surrender of Richmond, in 1865, but the pressure of the great armies whom he led to victory.

The announcement of my subject suggests three inquiries:

- I. Where was this farm?
- 2. Who was the first minister?
- 3. What of his farming?

To answer these will be my present endeavor.

T.

Where was the first minister's farm?

On the 17th day of January, 1726, the general court of Massachusetts Bay granted to one hundred prospective settlers a plantation seven miles square, lying on its northern border and on both sides of the Merrimack river, at a place called by the Indians, Pennycook.

This was known at first as the Plantation of Pennycook. In 1733 it was incorporated by Massachusetts as the town of Rumford, which name it bore until 1765, when it was again incorporated by New Hampshire as Concord, by which designation it has ever since been known. To avoid confusion from these

changes of name, I shall speak of it by its original Indian name of Pennycook.

These settlers were to be subsequently selected for their fitness, by a committee<sup>1</sup> appointed by the general court, and the territory thus granted was to be divided between them, the church, the school, and the first settled minister.

Pennycook, which had been long known to the early settlers of Massachusetts as an extensive tract of rich alluvion, had been previously granted to parties who, for failing to comply with the conditions of their grant, had lost it.<sup>2</sup> Up to this time it had been considered a valuable and undisposed portion of Massachusetts Bay Territory. Its boundaries under this last grant were substantially conterminous with those of the present city of Concord.

At this time, the northern boundary line of Massachusetts was undetermined. She claimed that it began at the sea, at a point three miles north of the Black Rocks, at the mouth of Merrimack river and thence ran westerly, three miles north of and parallel with this river to a white pine tree standing three miles north of the junction of its two main branches at Franklin; and thence due west to the South sea.<sup>8</sup>

<sup>1</sup> This committee consisted of Hon. William Tailer, Esq., Elisha Cooke, Esq., Spencer Phipps, Esq., William Dudley, Esq., John Wainwright, Esq. Capt. John Shipley, Mr. John Sanders, Eleazer Tyng, Esq., and Mr. Joseph Wilder.—*Mass. Court Records*, Jan. 17, 1725-6.

<sup>2</sup> The character of the lands at Pennycook was well known to the people of the coast towns at an early day. A grant of a tract eight miles square was made in 1659, to Richard Walderne and twenty-one others; but it was subsequently forfeited by non-compliance of conditions.—Mass. Archives, Vol. 112, p. 117.

In 1662, Joseph Hills and others, of the town of Malden, Mass., petitioned the general court "That a Tract of Land About fowre Miles Square at A place Called Pennycooke may be Granted As An Addition to us, for our better Support And Incouragement." This petition was not granted.—Mass. Archives, Vol. 112, p. 147.

June 9, 1721. In pursuance of an order of the general court of Massachusetts, a committee was appointed "To take an exact Survey of the Land on each side of *Merrimack*, between the rivers of *Suncook* and *Cuntacook*." This committee discharged the duty assigned them and made report June 15, 1722. It also appears that, as early as 1722, the Scotch-Irish had a knowledge of these lands and contemplated a settlement upon them.—*Mass. House Journal, June 15, 1722*.

<sup>&</sup>lt;sup>3</sup> Belknap's History of New Hampshire, Ed. 1741, Vol. 2, p. 138.

New Hampshire claimed that her southern boundary line began at the sea, at a point three miles north of the middle of the channel of Merrimack river, and thence ran due west until it met his majesty's other governments.

The territory between these two lines, and in dispute, embraced a part, but in most cases the whole, of the present towns and cities of Chesterfield, Westmoreland, Walpole, Charlestown, Claremont, Cornish, Swanzey, Keene, Surry, Alstead, Acworth, Unity, Newport, Croydon, Marlborough, Roxbury, Sullivan, Gilsum, Marlow, Lempster, Goshen, Sunapee, Springfield, Dublin, Harrisville, Nelson, Stoddard, Washington, Newbury, New London, Peterborough, Hancock, Antrim, Deering, Windsor, Hillsborough, Bradford, Sutton, Wilmot, Greenfield, Francestown, Henniker, Hopkinton, Warner, Salisbury, Andover, Lyndeborough, Mt. Vernon, New Boston, Weare, Webster, Boscawen, Amherst, Merrimack, Bedford, Manchester, Goffstown, Dunbarton, Bow, Concord, Hooksett, and Pembroke.

A glance at the map of New Hampshire shows that, if the northern line of Massachusetts was where she claimed it to be, the plantation of Pennycook, although upon her extreme frontier, was clearly within her limits and jurisdiction. And if, on the other hand, the line claimed by New Hampshire was the true one, Pennycook was as clearly within the limits of this province.

Inasmuch, therefore, as this uncertainty must in no long time be removed by an authoritative determination of the truce line, Massachusetts may have been willing to have established on the debatable ground a reliable colony of her own people, carefully selected for their fitness and friendly to her interests. At all events her extreme care in their examination and admission of the colonists which she sent to this new plantation is consistent with this supposition. They were a picked body of one hundred men, mostly from the old Massachusetts towns of Andover, Bradford, Newbury, Haverhill, and Woburn, who stood ready to occupy their new homes as soon as they could be surveyed and made ready for their use.

### SURVEY OF THE TOWNSHIP.

On Wednesday, the eleventh day of May, 1726, some four months after the date of the grant before mentioned, a majority of the committee appointed by the general court to take charge of the survey and settlement of this plantation, accompanied their chaplain, surveyors, chainmen, and some of the admitted settlers, numbering in all thirty-two persons, started from Haverhill, Mass., on their journey to Pennycook for the purpose of locating and making a partial survey of it.

They arrived at their destination on the afternoon of the following Friday.¹ Their journal clearly defines their route and says that they took their first noonday meal in Nutfield, "at the house of John Barr, an Irish tavern keeper as we were informed," of whom we "had nothing but small beer. Expenses for our trouble at ye house, 5s." The exact amount of "trouble" this sober company of Massachusetts Puritans had been able to extract from five shillings worth of small beer, I leave for your computation. About five o'clock in the afternoon they reached "Amoskeag Falls" and encamped for the night. Early the next morning they resumed their journey and passed "Onnahookline (Hooksett) Falls" about eight o'clock.

About nine they forded Suncook river, and four hours later the Soucook; about five in the afternoon they reached their destination and encamped on Sugar Ball Interval.

On the day after their arrival they were called upon by a committee of the New Hampshire government and warned to desist from their work, for the alleged reason that the territory upon which they had entered was within the limits and jurisdiction of that province. To them they made a civil reply, referring them to the government of Massachusetts under whose orders they were acting. Thereupon their visitors withdrew.<sup>2</sup>

The surveyors and chainmen were divided into three parties. The first, starting from the mouth of Contoocook river, ran out and marked the boundary lines of the township. The second and third surveyed and put up the bounds of one hundred and

<sup>&</sup>lt;sup>1</sup> Journal of Committee of General Court in Bouton's "History of Concord," p. 66.

<sup>&</sup>lt;sup>2</sup> Journal of the Committee of General Court, Bouton's "History of Concord," pp. 68 and 69.

three houselots upon the first terrace west of the Merrimack, and of the same number of homelots on the adjoining interval, having an aggregate area of 154½ acres, and whose united area was 921 acres and 141 square rods. These were distributed by lot on the 7th and 8th days of February, 1727, to the several proposed settlers of the township, the church, the school, and the first settled minister, one share to each.<sup>1</sup>

In the following May the remainder of the interval in the central part of the plantation, amounting to  $514\frac{1}{2}$  acres, was surveyed and assigned in 144 lots, varying in size from  $2\frac{1}{2}$  to 6 acres each to the 103 original proprietors. At this time, therefore, the division of the plantation territory stood as follows:

Whole area of the plantation, . . 31,360 acres, — sq. rds. 103 house lots, 154 acres, 40 sq. rds. 247 home lots, 1,436 " 61 "

Subsequent divisions and sales were made from time to time until the entire area of the grant had passed from joint to individual ownership.

Of the lands thus divided among the proprietors, the first minister received his apportionate share, which, increased by later divisions and purchases, made him a farm of some three hundred acres. This gave him a pecuniary interest in the plantation and kept him in close touch with his people. From it, he ever after received a portion of his support, and was a farmer as well as a preacher.

It is an interesting fact, in harmony with the devout spirit of the time, that this little company of committee men representing the General Court of Massachusetts Bay, surveyors and expectant settlers, should have brought with them their chaplain and that on the Sunday following their arrival, being the fifteenth day of May, 1726, public worship was celebrated for the first time in the wilderness Pennycook, which before this had echoed only to the cries of wild beasts and birds and the wilder cries of roaming Indians.

<sup>&</sup>lt;sup>1</sup> Records of proprietors of Pennicook.

### CONDITIONS OF PENNYCOOK IN 1726.

Upon their advent to Pennycook, the settlers found that some portions of the interval had been partially cleared by the Indians and were bearing a coarse grass, a fact of great consequence to them inasmuch as it allowed the immediate introduction of horses and cattle to the settlement. The very year the plantation was surveyed and before a furrow had been turned, Capt. Ebenezer Eastman cut grass and stacked it in Waternummons Field. The old Indian chieftain of that name, who claimed ownership of that land, forbid his doing so at first, but a few potations of the captain's fire-water removed his objections and he was permitted to cut to his heart's content.<sup>1</sup>

While the Indians had subsisted mainly by hunting and fishing, their women had practiced a rude agriculture of limited extent and raised small patches of corn, pumpkins, and possibly of tobacco. Indeed, some of their corn hills overgrown with grass remained undisturbed down to the memory of aged men now living.

It is to be inferred from the description of some of the bounds of the interval lots left on record by the surveyors, that the trees then growing upon them were to a large degree similar to those now found upon the adjoining uplands. Many of these bounds are described as a white or red oak, a pitch pine, a birch, a maple, an elm, a poplar, a bass, or an ash tree. Most or all of these, with some others, may be found in small numbers growing there to-day. Indeed, the upland and the low-land forests of the plantation were largely the same.

### THE INDIANS.

Up to the death of Passaconaway, and for some years after, perhaps, Pennycook had been the headquarters of the Indians of that name. The cunning and prowess of that great chieftain have been preserved in history and song. He died at some time between 1663 and 1669.<sup>2</sup> His successors were men of

<sup>&</sup>lt;sup>1</sup> Bouton's History of Concord, p. 41.

<sup>&</sup>lt;sup>2</sup> Judge Chandler E. Potter says, "Passaconnaway died prior to 1669,

<sup>. .</sup> The year of his death is not known. He was alive in 1663."—The Farmer's Monthly Visitor, Vol. 12, p. 40.

far less ability and unable to resist the pressure of the English immigration.

The new comers to Pennycook encountered no opposition from the red men. Indeed, about all of these had retired inland before their advent. A few only maintained a straggling life in and around this locality. Of these, Waternummons was the most prosperous and important.

His wigwam stood on the south bank of the brook which drains the waters of Horse Shoe pond into Merrimack river, and still bears his name; midway between the two, at a point where the Concord & Montreal railroad crosses it. was the highest in that vicinity and above the annual freshets. From its entrance he could survey his little patches of corn and pumpkins which his squaws were wont to plant and cultivate. Descending therefrom a few steps he could give attention to his pots of wicker work anchored in the stream to capture fish for his larder, while on their passage between the pond and the river. Here he smoked his pipe, nursed his scattered thoughts, and responded by shrugs of his shoulders and by deep gutterals to the remarks made to him by his unwelcome neighbors. considered the lands about him his by occupancy.1 They considered them theirs, by a title which traced back to its origin Might was the tribunal which settled land was the same. titles in those days. Waternummons was soon to lose his cause in this despotic court. He was the last of the Pennycooks at the headquarters of his people.

From the spring of 1726, when the survey of the plantation was made, on for four successive seasons, the proprietors were

<sup>1</sup> The Indian title to the lands at Pennycook was extinguished near the close of the seventeenth century, as appears by the following extract from the Massachusetts records:

"Wanalanset made a demand of the Lands at Penicook from Suncook to Contocook as his Inheritance, saying that they were never purchased of him nor his Fathers; and he likewise in behalf of the Indians resorting to Penicook, prayed that a Trading house might be set up there.

"The Govr thereupon acquainted the Indians, that Wanalanset, Chief Sachem on Merrimack River, had sold all those lands to the English almost forty years agoe, and the Secretary shew'd the Indian the Record of his Deeds, with which they express'd themselves fully satisfied and acknowledged that the English had a good right to the said Lands by those Deeds."—Mass. Council Records and Archives, Vol. 31, p. 183.

active in making roads, fences, and bridges; in clearing and plowing fields, and in the erection of houses for their families left behind them in Massachusetts, with whom they spent their winters. Éach spring when they returned they brought with them a chaplain. Rest and divine worship were maintained on the Sabbath.

These settlers of Pennycook were a practical, serious, conscientious set of farmers. They wrought diligently and patiently, and in half a dozen years had built up a thriving town in the deep wilderness, twenty-five miles beyond any other. They did not know, as we do now, that they were laying the foundations of the capital of a sovereign state. Their labors remind us of those which met the gaze of tempest tossed Xerxes, as his battered keels touched the Lybian shore, and he looked upon the busy throng engaged in the building of old Carthage.

Pennycook did not grow to a thriving town by slow accretions, but sprang into perfected municipality almost at once. In the autumn of 1730, a majority of the proprietors had become settled residents in their new houses.<sup>2</sup> The next thing in order was the organization of a church of Christ, as contemplated in their charter, and, in the phraseology of the times, the settlement of "a learned, orthodox minister." To this duty they next turned their attention, in compliance with an order of the committee of the Massachusetts General Court.<sup>3</sup>

H

# Who was the first minister?

The first minister was of old Massachusetts yeoman stock. He was born in Woburn, on the 27th day of July, 1705. His father was a founder and deacon of the church in that part of

- <sup>1</sup> Rev. Bezaleel Toppan and Rev. Enoch Coffin had been employed to preach to the settlers, before the settlement of Mr. Walker.—Bouton's History of Concord, p. 93.
- 2 It appears from an official statement that on the 20th. of October, 1731, about eleven months after Mr. Walker's settlement, seventy three houses had been finished and eighteen more partially finished,—Bouton's History of Concord, pp. 128-131.
- 3 " Ordered, That the proprietors or grantees of said town be, and hereby are notified and warned to assemble at the meeting-house, (in Penny Cook) on Wednesday, the fourteenth day of October next, at eleven of the clock in the

the town now known as Burlington. His grandfather was a deacon of the first Woburn church; a man of some prominence in the colony and a member of the convention of the people called after the deposition of Sir Edmund Andross from the high position which he had disgraced. His great grandfather who had been born in England, emigrated to Reading, Mass., and thence to Woburn about 1757, where he was a maltster and early tavern keeper, holding for twenty years responsible town offices. His great grandfather came to this country from England and settled in Lynn, Mass., in 1630. He was made a freeman in 1634, and was for more than fifty years quite active in town and colony affairs. He had a military turn of mind, was an officer of the Lynn troops and one of the founders of the Ancient and Honorable Artillery Company of Massachusetts. Like some others, before coming to this country he had been a member of the Honorable Artillery Company of England which he had joined May 28, 1622.

Having graduated at Harvard College in 1725, to recruit his slender finances, he had taught school for a time at Woburn, in 1726, and at Andover, in 1728. At both places, he made acquaintances with some of the Pennycook proprietors, a large number of whom were from those towns. At some time previous to 1730, he had studied theology and been licensed to preach. During the summer of this year, he conducted religious worship at Pennycook as had Rev. Enoch Coffin and Rev. Bezaleel Toppan, during those portions of the preceding years in which the proprietors were erecting buildings and preparing fields preparatory to the advent of their families.

In the autumn of 1730, as before intimated, the Plantation was ready for the formation of a Church of Christ and the settlement of a permanent minister. Accordingly, on the 14th day of October, it was

"Voted by the admitted settlers that, they will have a minis-

forenoon, then and there to choose a minister for, and settling him in the said town; and upon his acceptance of the choice to agree upon a time for his ordination."—Order of Massachusetts General Court Committee, 23d September, 1730.

<sup>&</sup>lt;sup>1</sup> Sewell's History of Woburn, pp. 236-239. Bailey's History of Andover, p. 149.

ter" and "that the Rev. Mr. Timothy Walker shall be the minister of the town."

At the same meeting they also

- "Voted, that Mr. Timothy Walker shall have one hundred pounds for the year ensuing, and then rise forty shillings per annum, till it comes to one hundred and twenty pounds and that to be the stated sum annually for his salary," and
- "That if Mr. Walker, by extreme old age, shall be disenabled from carrying on the whole work of the ministry, that he shall abate so much of his salary as shall be rational."

In accordance with this action, preparations were at once begun for the organization of a church, and the ordination and settlement of the minister on the 18th day of November following.

The officiating ministers present on that occasion were the Rev. John Barnard and the Rev. Samuel Phillips, the respective pastors of the North and South churches in Andover, and the Rev. John Brown, minister of the church in Haverhill. These gentlemen had patiently threaded their way through forty miles of wilderness to assist at this service.

The first preached the sermon usual on such occasions, which was subsequently published, covering thirty closely printed small octavo pages. The preacher evidently regarded this as a church in the wilderness, as in truth it was; its nearest neighbor being the Presbyterian church at Londonderry, twenty-five miles away. He said to the little company assembled in their log meeting-house, "There is this peculiar circumstance in your settlement that it is in a place, where Satan some years ago had his Seat, and the Devel was wont to be invocated by forsaken salvages: A Place, which was the Rendevous and Head Quarters of our Indian Enemies."

Following the sermon came a solemn charge to the minister by Mr. Phillips and a cordial right hand of fellowship by Mr. Brown.

The church organized at this time consisted of nine members, including the pastor, four of whom had been dismissed a few days before from the First church in Andover; one, elected its first deacon, came from the church in Haverhill, and another was from Bradford. In fact, many of the members of

this little community had been heretofore under the pastoral guidance of these three ministers.

Shortly after his ordination the new minister returned to his former home, married a wife, and a few days afterward returned with her on horseback to Pennycook. He was at this time twenty-five years old. His earthly possessions were a wife, a small tract of primeval forest, an uncertain future, and a salary of £100 a year, so long as he could earn it, equal, according to Dr. John Farmer, to \$130.67 of the present currency of the United States. This, doubtless, would have been larger but for the fact that the income of his prospective farm, given him as an encouragement to settlement, was expected to so far complement his salary as to render it adequate to a frugal support.

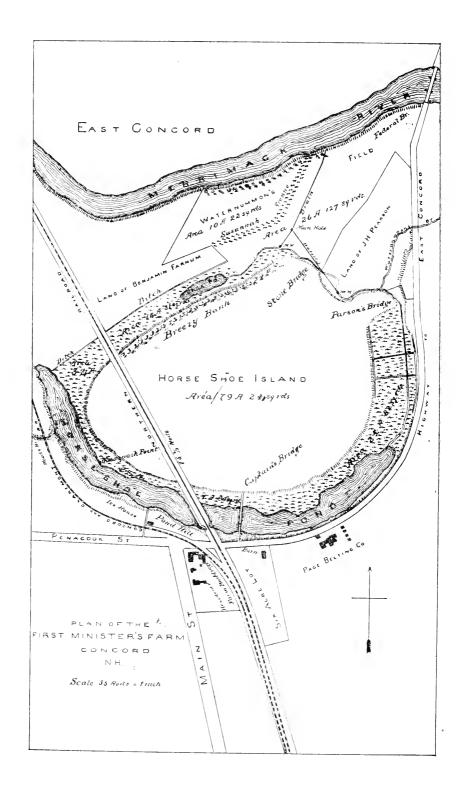
This early practice of giving to the first minister a farm may not have been a bad one. It brought him into closer touch with his people than he would otherwise have been; it gave him a clear idea of their daily thoughts, of their characters and aspirations; it made his and their worldly interests the same. Whether some arrangement akin to this between pastor and people would at this day produce like results is by no means unworthy of a candid consideration. A clergyman must know and sympathize with his people in all their varied interests if he would most successfully offer to their acceptance the great spiritual truths of which it is his high privilege to be the bearer.

Such was the condition of little Pennycook in 1730; such were its people; such was its first minister, a preacher of righteousness and a tiller of the soil. The yellow pages of his diaries contain vivid pictures of New Hampshire farming in the middle half of the last century. To a few of these I desire to call your attention.

### III.

# What of his farming?

The mowing fields of the first minister were kept productive mostly by the rotation of crops and the occasional pulverization of a virgin soil. Fertilization is not mentioned in any of his diaries which have been preserved. Haying began in July and continued on through August. In 1764 he housed his first



load of hay on the 17th day of July, and the last on the first day of September. The aftermath was cropped by his cows and other stock. This great length of the hay season was due to the interruptions of its operations by the harvesting of such of his grain crops as matured during this period.

His grass lands were also partly kept in heart by annual floodings from the Merrimack. These came every spring upon the melting of the snows upon its head waters, and occasionally in summer from heavy rains. Our records of the rain-fall extend back only about thirty-eight years. Beyond that limit they are very scanty and unreliable. There can be no doubt, however, that the precipitation was greater one hundred and fifty years ago than it is now. Then the primeval forests covered a much larger part of our area than do the secondary woods of to-day.

Forty years ago the maximum rise of the Merrimack was some twenty feet, and the Pennycook intervals were yearly enriched by freshets. Since then the forests have been thinned or removed altogether on large areas, and the lakes and many of the large ponds have been converted into reservoirs for the retention of the spring waters for summer use by the mills at Manchester, Lowell, and Lawrence. Thereby the vernal inundations have been largely diminished, to the serious detriment of interval grass lands. Fields, therefore, upon which good crops of grass were formerly made perennial by freshets, are now kept in heart only by frequent pulverization of the soil, fertilizations, and reseedings.

As a keeper of horses, cattle, and sheep, the first minister of necessity had pastures for their partial support. To keep these in good condition he was accustomed to prevent, so far as he could, all noxious vegetation thereon, and to cleanse their surfaces by burnings in the spring. In his time the ground was more humid than now, less compacted by the feet of cattle, and more productive. The contest was more with objectionable vegetation than, as now, with a lack of moisture and a dearth of feed.

When, a week or ten days after his ordination, the first minister brought his bride from her father's home in the good old

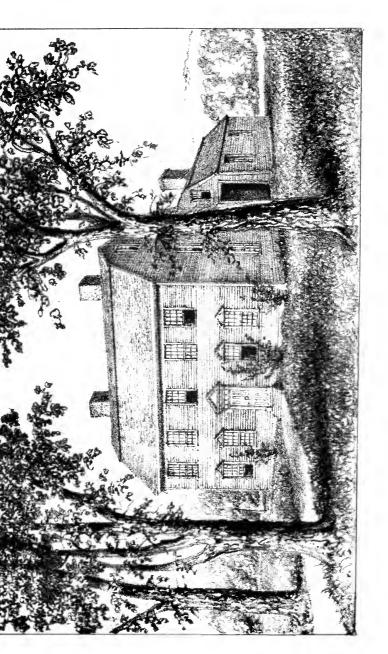
town of Woburn to the wilderness of Pennycook, he installed ner as mistress of a log house then standing upon a low bluft sloping to the shore of Horse Shoe pond. Thence he looked northward across the interval to the wigwam of the wily old Indian, Waternummons, before mentioned.

In this primitive abode the first minister lived until 1734, when, kindly aided by his people, he had erected a more commodious one of timber and boards. This was more pretentious than the first, being two stories high and covered with a gambrel roof. The cracks in the boarding of the latter were battened beneath the shingles with long strips of birch bark. The timbers were of oak and hard pine. The boarding of the walls was feather-edged, and nailed to the frame with wrought-iron nails made by the village blacksmith. The kitchen hearth-stone of granite is still in use, and is ten feet one and a half inches long and thirty-one inches wide. It was but partially finished inside, and went unpainted for more than twenty years. It still stands in comfortable condition, and has sheltered six generations of the good man's family.

In this, for half a century, he dispensed a simple hospitality to his numerous visitors. Here, John Stark rehearsed his captures by the Indians on Baker's river, in 1752, and his military experiences in the battles of Bunker Hill and Bennington. Here Robert Rogers, the Ranger, told of his bold exploits about Lake George, in our last French and Indian war, of his destruction of the Indian village, at the confluence of the St. Francis and St. Lawrence rivers, and of the annihilation of its male mis-

<sup>&</sup>lt;sup>1</sup> At a town meeting held on the 16th day of January, 1733-'4, it was "Voted, That there should be Fifty Pounds given to Mr. Timothy Walker for building of him a Dwelling House in Penny Cook provided that he gives the Inhabitants and Freeholders a Receipt that he has received in full for his Salary in times past until this Day for the Decay of Money it not being equal to Silver at Seventeen Shillings the Ounce."—Concord Town Records, printed copy, p. 15.

<sup>&</sup>lt;sup>2</sup> The houses in Pennycook were rarely, if ever, painted one hundred and fifty years ago. The first minister seems to have nearly finished his house in 1757, and was in much doubt as to the wisdom of painting it. He says, in a letter to his son dated September 9 of that year, "One article we have at present under consideration is whether or no to paint ye outside. Am advised to it by ye best judges and particularly Col. Rolfe."



# THE WALKER HOUSE, CONCORD, N. H.

This was built in 1734 by Rev. Timothy Walker, (the first, and for fifty years, the only Minister of Concord,) who lived in it until his death in 1782. From him it passed to his son Judge Timothy Walker who occupied it until 1822 when he died; and it descended to his son Capt. Jos. Walker, who, dying in 1833 left it to his son Jos. B. Walker, its present occupant. It has been somewhat modified from time to time; but this view presents it as originally constructed.



creants, who had, time and again, brought terror and death to the frontier settlements of New England.

Hither also came Benjamin Thompson, now known the world over as Count Rumford, and sought successfully the hand of the minister's eldest daughter. Here he talked over with his son and his three other sons-in-law the various events of the Revolution in which all of them had actively and patriotically participated. Here his brethren of the cloth always found hearty welcome, as did also scores and hundreds of others who sought, from time to time, his society and hospitality.

Successful farming in New Hampshire without a barn has never been possible. In due time the first minister managed to provide himself with one commensurate with his needs. It was about one hundred feet long and forty feet wide. Its interior consisted of two cross driveways, a granary, scaffolds and bays. Adjoining it on its south side was a lean-to for his cattle and horses.

Lumber was of good quality when this barn was built. Some of its timbers are doing faithful service to-day. It was, in short, one of those old New England barns which those who have known them contemplate with affection. Such an one as our own fathers and mothers played in when children; one in which a hen could hide her nest beyond all possibility of discovery and hatch an unwelcome brood of fall chickens with highest success; a barn to delight the heart of childhood and add pleasure to the reminiscences of old age.

In the early part of this century, a grandson of the first minister, to whom this structure, which had become old and old fash-

Given at Portsmouth, the fourteenth day of November, 1772.

<sup>&</sup>lt;sup>1</sup> The date of Count Rumford's (Benjamin Thompson's) marriage has not been preserved. His marriage license, however, is in existence and reads as follows:

<sup>&</sup>quot;By His Excellency John Wentworth, Esq.; Captain-General, Governor, and Commander in Chief in, and over His Majesty's Province of New Hampshire, etc. To either of the ordained Ministers of the Gospel in said Province, and them only. You are hereby Authorized and Impower'd to join together in holy Matrimony, Benjamin Thompson and Sarah Rolfe unless some lawful Impediment appears to you to the contrary.

No. 641333. J. Wentworth."

ioned as well, had been given by his father, proposed its demolition and the erection of a smarter one on the site of it.

But the father strenuously objected, saying, "Not in my day, my son; not in my day. That was the first minister's barn, and never was it without hay and grain for the horse of the visitor who came to see us. No, not in my day, my son, not in my day." Has it ever occurred to you, ladies and gentlemen, that in the old days before the stage coach and the rail car, there was in our New England towns, not only hospitality, but "horse-pitality," as well? It is a satisfaction to be able to state that a new barn was erected upon another spot, and the old one preserved until the first two generations which had owned it, were no longer living to witness its removal.

The farm implements used by the first minister were rude, clumsy, and of local manufacture. His plows were mainly of wood, the soles and coulters only being of iron, though their mould boards were usually plated with sheets of that metal.

The village blacksmith made his nails, his axes, and his chains, as also his clumsy pitchforks and flat tined manure forks. His grain was thrashed by flails and winnowed by exposure to the wind. His carts and sleds were generally constructed upon the farm and ironed by the blacksmith, the wheels of the former having felloes three inches wide, tired with short strips of flat iron. The wide rimmed wheel, shod with a continuous tire of equal width, is of modern date. His shovels were mainly of wood, having blades pointed with iron. His harrows, made often of a forked tree, had teeth sometimes of wood and sometimes of iron.

Rude as were those implements, they were as good as those of his neighbors. Better ones might, possibly, have been obtained from Massachusetts, or from England. But, had he been asked in later years why he had not sent thither for such, his reply must have been very nearly in the words of the great banker, George Peabody, to his friends, in allusion to his having sawed wood at Stickney's Tavern, in Concord, one morning, to pay for his bed and board over night, "money was not plenty with me then." Yet, then with these rude tools, the forest was successfully encountered and a comfortable living extracted from the soil.

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### DOMESTIC ANIMALS.

Successful agriculture in New Hampshire has always required the presence and aid of domestic animals upon the farm. The first minister kept a variety and number of these adequate to his wants. The unaided strength of man would have worked slowly in wresting from the primeval woods a productive farm. In all of our past agriculture the heavy work has been done by the horse and the ox. As early as 1727, the ox team appeared in Pennycook and has been common there ever since.<sup>1</sup>

Yes, the first minister had cattle and horses and sheep and swine. It would be vain to ask of what particular race were these, for the time of which we speak was before the time of most of the great cattle and sheep breeders to whom we owe so much. It will suffice to say that his cattle were all natives, descendents of earlier Puritan importations, some of them, possibly, of the coarse Danish cattle sent to his Piscataqua plantations, about 1633, by Capt. John Mason—the first cattle ever seen in New Hampshire.

His cattle and swine both were smaller than those among us now. He tells us that in November and December, 1764, he killed a cow whose weight was about ninety pounds per quarter, and a heifer whose fore-quarters weighed two hundred and thirty-four pounds. He also says that, he killed four hogs whose aggregate weight was but about eight hundred and fifty pounds. Some of you doubtless remember that the two Cooper hogs slaughtered in Croydon, some years ago, weighed respectively, 1,250 and 1,370 pounds.

Lest you look with surprise upon these figures, I will venture to remind you that when this board of agriculture was established, in 1870, pure blooded stock was hardly known in New Hampshire and that an ox measuring seven feet was, in most localities, considered more fit for the shambles than for the field.

The first minister employed both white and black help upon his farm. In 1730, when he was ordained, the population of

<sup>1</sup> The first ox-team ever seen in Pennycook was that of Capt. Ebenezer Eastman, which was driven into the plantation from Haverhill, Mass., by Jacob Shute, in the fall of 1727.—Bouton's History of Concord, p. 565.

New Hampshire consisted of about 10,000 white and 200 black people. Of the latter, more or less were slaves. Slavery was recognized and regulated by the Provincial law. It was never formally abolished in New Hampshire, but was simply ignored in its state constitutions and laws. It was unprofitable and its maintenance was undesirable. Had it been otherwise, it might have continued as long in New Hampshire as it did in Georgia; for it is often a humiliating fact, that while persons declaim loudly upon great moral and religious duties and principles, they quietly regulate their private actions by what they deem their private interests.

In the first minister's day, slavery was well nigh universal among the nations, and its injustice was little thought of. But, from the traditions which have come down to us, it is a matter of some doubt, whether here in New Hampshire, the master ruled his slaves, or his slaves the master. It is quite certain that their service was easy and their lives contented.

Tradition says that on one occasion, when his servant, Prince, went with an ox team upon the farm, the first minister accompanied him. Coming to a slough in the road, the latter seated himself upon the rear end of the cart and the darkey mounted the tongue. In the deepest part of this slough the cart tipped up and the minister found himself in the water, to the loud regrets of his driver, who sorrowfully informed him that the pin which held it down had jolted out. A few days later, the order of riding was reversed, and at the same place, the cart again tipped up and this time dumped Prince into the water. Sitting quietly upon the cart tongue and holding up the pin, the good-natured parson with a twinkling eye remarked, "The pin, Prince, has jostled out again, just as it did before."

Against the date of December 31, 1746, is this entry in the first minister's diary: "Went to Canterbury. Bought a negro wench of Capt. Clough for wh I am to give him £140." The bill of sale of Prince together with those of several others of his slaves have been preserved. That of Prince reads as follows:

Woburn, July 10, 1751.

For value rec<sup>d</sup> I have this day sold to Mr. Timothy Walker a negro boy named Prince, which I have owned for some time past.

Ruth Hayward.

Another, dated April 3, 1776, about three months after New Hampshire had assumed civil government and adopted a temporary constitution (Jan. 5, 1776), reads as follows:

Know all men by these Presents that I Aquis White, of Pembroke, in ye colony of New Hampshire, Widow, for and in consideration of ye sum of Thirty Five Dollars to me in hand paid before signing this writing by Timothy Walker, of Concord, in ye colony aforesd, Clerk, have sold and hereby doe sell to ye sd Timothy Walker, A Negro woman servant named Violet, which said servant I engage and warrant to him, his heirs or assigns, to be improved or disposed of according to ye custom of servants in this country during her Natural Life, as witness my Hand this third day of April One thousand seven hundred and seventy six.

Testes

Her Elizabeth × Moor Mark Martha Parker.  $\operatorname*{Aquis} \overset{ ext{Her}}{ imes} \overset{ ext{White}}{ imes}.$ 

We infer from this that the assumption of independent government was not considered to have abolished slavery in the colony of New Hampshire.

But most of the work upon the first minister's farm was that of white men. One of these, Eph. Colby, was a great athlete, renowned for his prowess at raisings and military musters. Had he deferred his life to the present time, and entered one of our colleges, he would have greatly increased its fame and attracted students to its halls.

Tradition says that, one evening the bully of Chester came to Pennycook "with a chip on his hat." Eph. was greatly excited and anxious to meet him. But the mild persuasions of the first minister, kept him at his hoeing. The next forenoon, however, when, near midday, the Chester champion showed himself in a boastful manner upon an eminence near by, Eph.'s valor became irrepressible. He was missing after dinner. At nightfall tidings came to the parsonage that a great contest had been fought out. Soon after Eph. returned contused all over and minus his front teeth. His opponent, a mass of purple jelly, with two ribs broken, had been taken for repairs to the village tavern.

### CORN.

On the warm rich loam of his interval the first minister raised corn as the Indians before him had done. The first day of May, old style, corresponding to our eleventh of that month, was then the day for planting it. But this rule was not strictly observed. In 1746 he planted his corn on the 7th and 8th, and in 1780 still later, on the 20th.

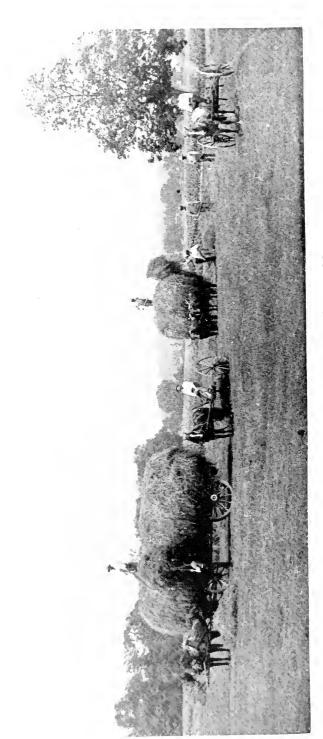
Soon after corn was up, it was "weeded," and some ten or fifteen days later it was "moulded," or slightly embanked. Later still it was "hilled," by a farther elevation of the embankments. Thence onward to harvest time it required no farther labor. By the middle of October it was carted to the barn and husked.

Then huskings were social occasions as well as useful; enjoyed by the young and old of both sexes. To the more sedate they commended themselves on account of the large amount of work quickly and easily accomplished; to the young men and maidens on account of the opportunities which they afforded for merry meetings together. The penalty or privilege, whichever in any particular case it was, attached to the finding of a red ear, was gallantly paid and blushingly accepted.

Against the date of Friday, October 12, in the minister's diary for 1764, we find this brief entry, "At night had a husking." Some of the ladies here present, if any such there be, who were young fifty years ago, can interpret that entry to their more youthful sisters, far better than the dignity of this staid occasion will allow me to do either verbally or otherwise.

### RYE, WHEAT, BARLEY, AND OATS.

Rye, wheat, and barley, no longer very largely raised on our New Hampshire farms, were annual crops on that of the first minister. Winter rye, as he tells us, was sown in October and reaped early in August. His winter wheat was ready for the cycle at the same time. He also raised barley, sowing it in 1746, on the 14th day of April. In 1764 he sowed his oats on the 19th of this same month.



HAVING ON THE FARM OF THE FIRST MINISTER.



#### TOBACCO.

Whether the good parson occasionally solaced his mind and aided his reflections by a moderate use of that plant which was for many years the staple crop and currency of old Virginia, I have no present means of determining. That he raised more or less of it he tells us in his diary in which we have it on record that, on the 6th day of July, 1764, "he sat out the missing tobacco plants." If, two hundred years before this, the great Sir Walter Raleigh could properly entertain prim Queen Bess and her court, by smoking tobacco in their presence, and force them to acknowledge themselves beaten, when asked the weight of the smoke which he puffed in their faces, most surely a quiet New Hampshire parson, back in the wilderness, might be allowed to enliven his pious lucubrations by similar fumings.<sup>1</sup>

Another of the crops raised by the first minister was flax. The seed was sown early in May, at the rate of from three to four pecks per acre, if seed was sought, and from eight to twelve, if the fibre was wanted. It was weeded if necessary, and harvested in the early part of August, by pulling up the plants by handfuls and collecting them into small bundles. Some weeks afterwards, these were spread upon the ground "to rot," as the term then was, the object being by exposure

<sup>1</sup> Tobacco, though produced in a small way for home consumption, has never been raised in New Hampshire as a commercial product. Her farmers have never been attracted to it. Some years ago, the New Hampshire board of agriculture held a meeting at Winchester, to which Deacon S. W. Buffum, then the member from Cheshire county, had invited the brethren of a farmers' club in a neighboring state, who were present and asked to address the meeting.

Many of them were producers of tobacco, and their talk was mainly upon its culture, a subject not upon the programmes of the meeting. When they had consumed much of the forenoon session the deacon and his New Hampshire friends grew tired of it. But how to courteously arrest its flow was not apparent. At length, however, endurance became a doubtful virtue, and a plain spoken New Hampshire farmer got the floor and expressed, as emphatically as plainly, his opinion that tobacco and rum were twin products, and that the culture of the former was of as little importance to the farmers of New Hampshire as the manufacture of the latter. That opinion seemed to prevail and the farther discussion of tobacco raising ceased.

to sun and rain to loosen the flax fibre from the inner and outer portions of the stalk.

It was next stacked or stored ready for "breaking." This was done by a machine consisting of a series of fixed, horizontal, hard wood slats, three fourths of an inch thick and an inch apart, sustained, edges upward, upon a frame two feet and a half high. To these, hinged at one end, was an upper corresponding series. If brought together, the slats of the two intermingled. When alternately raised and lowered, the flax stalks placed between them were broken and loosened from the fibre.

The next process was that of "scutching." The broken stalks were held by left handfuls over the upper edge of an upright block or board, while by repeated blows of a broad, wooden-bladed knife, held in the right hand, their loose bark and wood were separated from the flax.

The last operation was that of "heckling," or combing. This, like the weekly combing of her boy's head by an easygoing mother, was not altogether a slight one. It consisted of separating the flax from the tow by drawing the tangled mass through the upright steel teeth of a stationary comb.

Flax was not only a home product, but was raised for home manufacture and use. It was spun upon a foot-wheel and woven upon a hand loom, by female members of the household, for sheets, table cloths, and under garments. The factory was yet unborn and a hundred years off in the unknown future.

When bleached, this home-made linen rivalled the snow in whiteness, was durable, and, to appreciative eyes, beautiful. The tow was manufactured into coarser fabrics. The cloth made from this, imperfectly cleansed from pointed fragments of bark, was often converted into trousers for the boys and men, and served the double office of a covering and an irritant to the parts which these encased. Possibly some old boy may be here present to-day who has unaffectionate remembrances of such trousers. If so, in all probability he would hardly care to have me repeat the emphatic expletives they may have caused him to utter, and of which it is hoped that he has long ago repented.

Peas seem to have been sown broadcast in considerable

quantities as a field crop. On the 18th of April, 1764, the good minister sowed them in no less than three different places, in the latter, "I peck of large peas and three pecks of Hotspurs." On the 4th of August, these were "haik'd." Forty days afterwards he cleared up fourteen bushels, having previously brought four and a half bushels from "Mr. Virgins."

It may seem to us a singular fact that, in none of the first minister's diaries which have come down to us is there any mention of the potato, and that we are left to infer that it was not in very general use in Pennycook before the Revolution. We are told that it was first brought into New Hampshire by the Scotch Irish, who settled at Londonderry, in 1719. While it was well known in South America long ere this, it did not become a common article of food in this country or in Europe, Ireland excepted, before the middle or latter part of the eighteenth century.

In the days of which we are speaking, a considerable variety of beverages were in common use, some of them being intoxicating, while others might be called exhilarating and even inebriating if taken in excess. Among the latter were beer and cider.

The first minister, as did also his neighbors, furnished them to his visitors and to his household. He made cider, and was part owner of a mill for its manufacture.

In 1764, however, he seems to have decided that it became the town minister to become sole proprietor of such an institution, and he proceeds accordingly. He first enlarged his orcharding, as he tells us, by setting out, on the 21st of April, "about 20 apple trees in ye Island orchard" and "ye Joel orchard;" that on the 23d he bought and set out 40 apple trees, and that on the 24th he "sat out about 60 young apple trees in ye house lot," thereby making to his former orcharding the very respectable addition of 120 trees.

As showing farther progress in the accomplishment of this important purpose, he remarks, against the date of August 3d of this same year, "Sold him [Mr. Farrington] my quarter of cider mill for  $7\frac{1}{2}$  days work. . . . Mr. Aaron Stevens was

<sup>&</sup>lt;sup>1</sup> Belknap's History of New Hampshire, ed. of 1791, vol. 2, p. 37.

witness to ye bargain and the 6 days ½ work are chalked up above his mantle piece." Down to times quite recent, the mantel piece and the cellar door have been favorite tablets upon which to inscribe in chalk important matters which an ordinary memory might fail to retain.

Thus far his procedures in this direction were introductory. To the attainment of his main objective point he soon afterwards moved with much directness. He says, in his diary,—

Sept. 5. Mr. Blaisdell began to work on ye cider mill.

- " 6. Brot mill sweep from Rattle Snake Hill.
- " 7. Began to frame ye Cider mill.
- " 13. Raised ye Cider mill.
- Oct. 8. Mr. Hanniford worked on ye Cider mill.

Whether Mr. Hanniford finished "ye Cider mill" on this last date does not appear. It is certain, however, that it was in active service on the 16th. The record farther says:

Oct. 16. Made 7 barrels of cider.

Oct. 17. Made 2 barrels of water cider.

Oct. 18. Made 12 barrels of cider.

Oct. 20. Made 4 barrels of water cider. Gave Lieut. Webster one of them.

The result of these four days' work was 19 barrels of cider and 6 barrels of water cider, a grand total of 25. If the several ministers of this new city of Laconia are to-day as well supplied on this line as was our first minister in 1764, the hard times will affect them but little, and they may look for more frequent calls for spiritual refreshment than ministers usually have.

It is a singular fact that, notwithstanding the evil results of a free use of alcoholic stimulants, this remained so long unchecked. Scant would have been deemed the hospitality at ordinations, church councils, funerals, raisings, trainings, elections, and, in short, all social occasions, had not spirit of some kind been present and free. It was not until about 1825 that efforts in favor of temperance were first made in New Hampshire. Total abstinence is of a date still later.

For many years after its settlement the principal exports of

New Hampshire were fish and lumber. The latter commodity embraced spars and masts for the royal navy and the mercantile marine of the old country. These were made from large, straight, and tall white pines, which were found scattered throughout the woods, more particularly in the neighborhood of the streams.

In the first minister's time, and even later, "masting," as it was termed, was pursued to some extent by parties residing within the limits of his parish. The business was laborious, hazardous, and expensive. It required good judgment in the selection of proper trees, and in the felling and moving of them. As many as one hundred and four oxen were sometimes required for their transportation from the woods to the river upon which they were floated to their destination, which was usually Newburyport, Mass. This business therefore required during the time of its prosecution the temporary aid of the teams and of many of the men of a large surrounding area, and awakened much interest in the community. In this the first minister shared, manifesting it by sending his team to help on the work.<sup>1</sup>

This imperfect explanation of the business in his time and locality will make plain to you the significance of the following extracts from his diary for the year 1764.

<sup>1</sup>The first mast-master of whom we have particular knowledge was Lieut. John Webster. . . Mr. Timothy Walker remembers that Lieut. Webster cut a mast in Northfield which measured thirty-eight inches in diameter at sixty feet from the butt, and took one hundred and four oxen, or fifty-two teams, to draw it.

The next famous master was Capt. Reuben Kimball. The manner in which he carried on the business was as follows: Taking a strong team in the winter, of twenty yoke of oxen or more, with sleds and an adequate number of men, he went into the woods and camped. His men were divided into sections for particular parts of the work, called swampers, teamsters, choppers, peelers, and tailsmen. The swampers cleared the way; choppers cut down the trees; peelers peeled off the bark; teamsters drove the oxen; and two tailsmen walked beside the hind team, and in case at any time the tongue of the sled, in passing a hollow place, run so high as to lift the hind oxen up by the neck, then the tailsmen seized the tails of the oxen and drew them outward, so that in coming down the tongue of the sled would not strike them.—Bouton's History of Concord, pp. 537, 538.

Jan. 9. Ye mast team sat out.

- "17. Prince with the yoke of oxen went into ye mast camp.
- " 18. Mr. Webster hauled his great mast at night.
- " 20. At night Prince returned from masting.

Masting continued to be a business of considerable importance for many years. A locality where masts were collected and rolled into the Contoocook river, in the north-westerly section of Pennycook, is still designated "The Mast Yard," and has given its name to the station of the Boston & Maine Railroad established there.

This paper embraces the period of our two last French and Indian wars and of the Revolutionary War (1726–1782). While New Hampshire was a province of England she was called upon to participate in the hostilities between the mother country and France.

The questions at issue in the first of these wars was that of the Austrian succession, a question in which New Hampshire had about as much real interest as in that on which side of the undetermined line between her territory and Canada the woodchucks in that vicinity ought to burrow.

The long peace which followed the treaty of Utrecht (April, 1713) proved but little more than an armed truce, and in 1744 war again broke out between England and France. This precipitated upon the northern frontier of New Hampshire the horrible succession of Indian barbarities which the Canadian French were wont to instigate and reward. In anticipation of their advent the people of Pennycook built garrisons for their protection.

In the first minister's diary for 1746 may be found many entries significant of the exposure of himself and people at this time.

Jan. 28. Began to haul fort timber.

This was for the grooved posts and tenoned timbers which formed the garrison walls to be built about his house and three or four others of a temporary character, in close proximity thereto, erected for the accommodation of such families as, assigned to his care, could not be sheltered within his own.

Such hasty entries as these mark the progress of their construction and occupancy.

May 23 & 24. Joseph Pudney and als. built their chimnies.

" 28. Joseph Pudney and Obh Foster moved into ye houses. June 23. built ye Tailor's chimney" (Isaac Walker, the tailor)

This garrison of the first minister was one of the twelve erected in the township for the protection of its people.<sup>1</sup> To it a committee of the provincial government assigned eight neighboring families besides his own. A portion of the men maintained watch and ward upon the walls. A part went out daily with implements of husbandry, and armed, to their work in the fields. Three guns from this garrison was a signal for all outside to repair at once within their respective strongholds for safety.<sup>2</sup>

As indicating the dangers to which the people of Pennycook were daily exposed at this time, we quote further entries from his diary of 1746:

April 22. Ye indians took Woodwell's Garrison.

" 25. Went to Boston to carry news of ye indian mischief.

May 24. In the night we had tidings of mischief being done about sunset, at Contoocook, by ye indians. Thomas Cook and als. killed.

June 11. Benj<sup>n</sup> Blanchard of Canterbury was scalped by ye indians.

June 12. Our town was universally alarmed by hearing some guns discharged in ye woods.

June 24. Mr. Stickney brought up my new gun.

<sup>1</sup>The several locations of these garrisons are designated upon the accompanying map of Concord (formerly Pennycook) in 1746.

<sup>2</sup>The danger to which the inhabitants of Pennycook were at this time exposed is farther indicated by a vote of the proprietors, passed March 19, 1746, that a copy of their town records be made, and that the originals be sent to Massachusetts for safe-keeping.—Proprietor's Records, vol. 3, p. 184.

Half a dozen years before this, notwithstanding it was a time of peace, the general feeling of insecurity was such that the town "Voted, That there shall be a good and Sufficient Garrison built around the Revd Mr Timothy Walkers dwelling House as soon as may be Conveniently at the Town's Cost."—Concord Town Records, printed copy, p. 46.

This was afterwards a trusted companion to the first minister. Many a Sunday it stood beside him in his pulpit. While he believed in the gospel of peace, he believed also in gunpowder as, at that time, an active persuasive thereto.

June 25. Bishop was captivated by ye indians.

June 30. An alarm over ye river on account of indians being seen.

July 1. Dorcas Hall saw an indian at night. George Hall lay abroad and saw six indians.

Aug. 11. Jonathan Bradley and als. were killed by ye indians.

" 16. Andover men came up to guard us.

29. Went to Boston.

30. Put in a petition for help against ye indians.

Sept. 3. Went to Boston to obtain a grant of 20 men.

If the question be asked why not to Portsmouth rather than to Boston? The answer must be that the provincial assembly of New Hampshire never manifested much friendship for Pennycook, and strangely left to Massachusetts the manning of some of the most important forts which the recent determination of her southern boundary line left within her limits. It was not to her credit and it does not read well in history that she left Fort Dummer and the fort at Number Four to be manned by the soldiers of another province.

Turning again to the diary of 1746, we read:

Sept. 15. A false alarm.

18. Went out into ye woods scouting.

Nov. 10. Ye indians killed — Esterbrook.

" 20. Our soldiers were dismissed.

" 28. Capt. Goffe's men went away and carried 5 days provisions.

Dec. 9. Went into ye woods. Lodged there.

On a fly leaf of his diary for 1746 he thus tersely summarizes the barbarities of this year (1746).

Woodwell's Garrison was taken April 22.

Thomas Cook and als. May ye 9.

Richard Blanchard scalped June 11.

Bishop was captivated June 25. Jon Bradley and als. Killed Aug: 11. Esterbrook killed Nov. 10. Killed 8. Captivated 12. Died of his wounds 1.

A most melancholy record of a melancholy year! Under such conditions nothing could flourish. Men, women, and children simply struggled for existence. And yet, the worship of God was regularly maintained. Partial crops were raised and harvested and the frontier was defended.

The year before, generous in its poverty, this little township had sent at least five, and doubtless more, of the effective men she so sadly needed at home to aid in that strange capture of Louisburg, the main credit of which belonged to William Vaughn and was given to William Pepperell. The discomforts of garrison life told most severely upon the women and children. Protracted confinement in close quarters and a constant sense of peril caused a physical and mental strain almost intolerable.<sup>1</sup>

The treaty of Aix La Chapelle brought indeed an uncertain peace in 1748. But whatever had been gained by the war was surrendered by the home authorities, and all parties dissatisfied took breath for a final struggle in the near future. This war had settled nothing and another was inevitable.

The Seven Years' war, which soon followed, was precipitated, as will be remembered, by the seizure of some of the Ohio company's men by the French in 1753. After a desultory contest of some two years, England formally declared war with

<sup>1</sup> Beside the dangers and annoyances from the French and Indian enemy and from the Bow proprietors, who claimed the homes which they had wrested from the wilderness, the early settlers of Pennycook encountered others from within, as appears from votes repeatedly passed at their annual town meetings, of which the following are specimens:

15th March, 1738. Voted That Ten Shillings be paid for each Wolf that shall be killed within this Township (for the Year 1739) to the Killer of said Wolf.

Voted That Twelve Pence be paid for each Rattlesnake that shall be killed within this Township by the last of May next and brought to One or More of the Select Men.

Voted That the Hogs may run at large within this Township for the Year 1739.

France (May, 1756) and hostilities were waged with varying results until the capitulation of Montreal in 1760. The early campaigns showed decisively the incompetency of the English generals sent over to command the English and colonial troops; making apparent the conceited wilfulness of Braddock, whose name has become synonymous with defeat, the imbecility of Loudoun, and the inability of Abercrombie. But the accession to power of William Pitt and the appointment to general command of General Wolfe soon brought order out of chaos and substituted victory for defeat.

In this war the American colonies had much at stake—more far than they knew—and were intensely interested; for the great question at issue was, whether North America should be English and Protestant or French and Catholic. When, on the 18th day of September, 1759, the lilies of France were removed from the ramparts of Quebec, this momentous question was settled. While her worthless king had been toying with his trifles and his mistresses, France had lost a domain compared with which her own was but a province.

From first to last the little community of Pennycook, counselled and encouraged by her minister, had contributed liberally from her scant supply of men and means to further the national success. She was gallantly represented in the first expedition to Crown Point in 1755, at the massacre at Fort William Henry in 1757, and at Ticonderoga, Crown Point, the Indian village of St. Francis, and at the capture of Quebec in 1759. From the imperfect records which have escaped destruction have been gleaned the names of no less than forty-three of her stalwart men who in this war did honor to their country and themselves as well.

From the treaty of Paris on for a dozen years, the American colonies had peace and an opportunity for recuperation and growth. But the selfish policy of the home government soon created an unrest which broadened and deepened until it had culminated in revolution.

The people of the American colonies, at the time of the Revolution, were fortunate in three particulars:

1. The French and Indian Wars had taught them the use of arms and their own power.

- 2. When their great struggle with the mother country came on, their leading men were neither rich nor corrupt.
- 3. Their clergy, a well educated class, largely graduates of Harvard and Yale, were, with few exceptions, patriotic. "But for the clergy," said in my hearing some years ago, an old gentleman of wide observation and reflection, "but for the clergy, we could not have successfully fought through the Revolution."

Tradition says that intelligence of the Battle of Lexington reached Pennycook in the evening and caused great excitement. Early the next morning, a neighbor of the first minister looked across the intervening fields and observing a light in his study, went at once to discuss with him the tidings of the night before. As he passed to the door, he saw, through the curtainless windows of his study, the good man alone, striding back and forth evidently in painful thought.

He entered without knocking. The pastor recognized him instantly, and as instantly remarked, "We must fight, John, we must fight. There is no longer any alternative. Yes, John, we must fight." He had been in England three times since 1753, and knew well the disposition of the king and of his advisors. His was also the spontaneous opinion of all patriotic Americans.

A very few days afterwards one of the First minister's sons-inlaw raised a company of thirty-six men and led them to Cambridge, where he was soon transferred as adjutant to staff of Col. John Stark.<sup>1</sup> A little later a second one entered the army as second lieutenant of another company. Both fought under Stark at the rail fence in the Battle of Bunker Hill. The first died in the service at Crown Point in 1776. The second fought persistently through the entire period of the Revolution and was honorably discharged at its close with the rank of major.<sup>2</sup> To the good man's great sorrow his remaining son-in-law, then Benjamin Thompson, now known as Count Rumford, joined the ranks of the Tories and retired within the British lines about Boston, in October, 1775.

<sup>&</sup>lt;sup>1</sup> Capt. Abiel Chandler.

Major Daniel Livermore, for many years a respected citizen of Concord who died in 1798 at the age of 49 years.

His only son, as loyal to the American cause as was his father, was active as a military man until 1777, when his removal to the bench restricted his efforts to more of a civil nature.

Without detailing the movements of the First minister during this crucial period of our history, it will suffice to say that his record was that of an active Christian patriot. At the beginning of hostilities he took a stand from which he never swerved,—a stand which exposed his little estate to confiscation and his neck to the halter.

He lived to hear of our triumph at Yorktown and to rejoice in the cessation of hostilities which followed it. All through life he had shared his people's fortunes and for fifty-two years, except when temporarily absent in their behalf, had regularly occupied the pulpit to which they had called him. But the end of his farming and his preaching had come.

One Sunday morning, a little less than a year after the surrender of Lord Cornwallis, his people assembled at the meeting house for their usual service and there many of them first learned that their venerable pastor was dead. He had risen in the expectation of meeting them as usual, but the great arbiter of human actions had summoned him to a greater assembly, and to a higher service. The Pennycook pulpit was for the first time vacant.

In due time, the town placed at his grave a plain slab of slate stone, which tells the reader that,

> He died on the 1st day of September 1782, In the 78th year of his age And the 52d of his ministry.

But it was mainly to the leadership and pastoral care of a rural people that the first minister devoted his time and energies.

He identified himself with their temporal interests. Many of their early legal documents are in his handwriting. He worked with them for the establishment of American nationality. In the defense of their homes against the Bow proprietors his aid was invaluable. Three times he went to England with appeals in their behalf from the judgments of the provincial courts.

He also identified himself with their spiritual interests. He taught them weekly from his pulpit. He joined them in marriage. He baptized their children. He buried their dead. His life was in close touch with that of his people.

Such were some of the salient points which characterized the agriculture of central New Hampshire from those which distinguish it today. The soil was then new and productive. The cattle and swine were smaller, coarser, and of no well defined races.

Barley, wheat, and peas were raised more extensively then than now.

Flax was a common crop, and tobacco was produced for domestic use.

Cider was made in large quantities, and was a common beverage.

Slavery existed in a mild form, and more or less of the farm work was accomplished by enforced labor. Agricultural implements were few and clumsy.

During the French and Indian wars farming operations were greatly hindered and prosecuted with danger.

The style of living was simple but abundant.

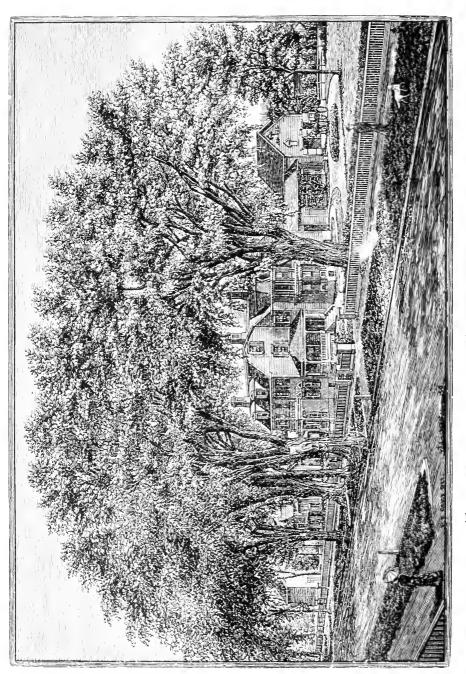
Food and clothing were products of every farm. So, too, were children, bright, sturdy, numerous.

Little, remote, wilderness-begirt Pennycook was an ideal community. The poets sing of Arcadia, but Pennycook was more than an Arcadia. Its people owned the farms which they cultivated. They were honest, intelligent, self reliant. Until 1776 they were loyal British subjects. The Declaration of Independence made them American citizens.

But, ladies and gentlemen, my time is up, and I close here my recital of the record of the First Minister's Farm, omitting the last one hundred and twelve years of it. It is still in the occupancy of his descendants. Should its later history be called for, I may reply in the words of the tapster to the thirsty guest of the old English inn,







THE HOUSE OF THE FIRST MINISTER, 1895

# The Farm of the First Minister.

# A SECOND ADDRESS

Delivered before the New Hampshire Board of Agriculture, At The Weirs, August 15, 1895

BY

# JOSEPH B. WALKER,

OF CONCORD, N. H.

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# THE FARM OF THE FIRST MINISTER.

BY JOSEPH B. WALKER, CONCORD.

## PART II.

Mr. Chairman, Ladies and Gentlemen:

I had the honor, a year ago, about this time and in this place, to read to you, as those of a typical New Hampshire farm, the annals of that of the First Minister of Pennycook, now Concord, and the capital of this state, from the time it was wrested from the wilderness, down to the death of its first proprietor in 1782,—a period of fifty-two years. I have since been invited by this Board to continue the narrative to the present time. For that purpose I am here to-day.

Concord was colonized, rather than settled in the usual way by accretions from time to time of individual immigrants. The proprietors were all admitted to plantation rights after careful examinations by a committee of the General Court of Massachusetts Bay as to their fitness. As a consequence, as early as October, 1731, less than six years after the grant of its proprietary charter, almost every one of its proprietors had a portion of his land improved and a house built thereon.

In 1769, the First Minister transferred the ownership of one half of his farm to his only son, Hon. Timothy Walker, and in 1782, devised to him the other half.<sup>2</sup> He had been born upon it and was familiar with its traditions. He had been educated

<sup>&</sup>lt;sup>1</sup>See Appendix A.

<sup>&</sup>lt;sup>2</sup> On the 25th of December, 1769, the Rev. Timothy Walker deeded to his only son, Hon. Timothy Walker, "The one half of all the lands which I own in the Parish aforesaid, as well such as are already divided into lots as those which I own in Common with other Proprietors of said Parish." By his will, executed August 10, 1782, he devised to him the remainder of his real estate.

at Harvard, had studied theology, and was for several years a minister of the standing order, but was never settled. The Revolution, however, swept him from clerical, first into military, and subsequently into civil life. In 1777, he was appointed a justice of the Court of Common Pleas for Rockingham County, an office which he held until he became disqualified by the limitation of age, in 1807; having been presiding justice from 1789. He died May 5, 1822, at the mature age of eighty-five years.<sup>1</sup>

By his deeds bearing dates from June 20th, 1803, and June 23, 1807, the farm passed to its third owner, his youngest son, Captain Joseph Walker.<sup>2</sup> He held it until his death, March 3, 1833, when it descended by law to his only son, the present owner (Joseph B. Walker).

During the ownership of the second and third proprietors, a period of about fifty years, the agriculture of New Hampshire was more conservative than progressive, and made few advances. A traditional system of mixed husbandry prevailed, mingled with domestic manufactures. The farmer lived more entirely than now upon the products of his farm. He sold little and bought little, and that mostly by barter.<sup>3</sup>

The latter part of this period, however, marks the approaching rénaissance of New England agriculture. Improved breeds of sheep and horses were introduced. The horse hay-rake and iron plows came into use. The first New Hampshire Board of Agriculture was established, as were our several county agricultural societies. The depressing influences of the wars of the Revolution and of 1812 had passed away, and the new spirit of a new age was everywhere felt and manifest.

For nearly thirty years after the death of its third proprietor, the farm of the First Minister was occupied by tenants. To say that its condition improved during that period, would be to say what is not true. To say that it was maltreated, would be equally so. For the use of it, the fourth proprietor received a fair annual rent and the tenants secured for themselves a fair net profit.

<sup>&</sup>lt;sup>1</sup>See Biographical Sketch, Appendix B.

<sup>&</sup>lt;sup>2</sup> See biographical notice of Capt. Joseph Walker, Appendix C.

<sup>&</sup>lt;sup>3</sup> See Agricultural Advancements, 1782 to 1833. Appendix D.

But our agriculture will be unlikely to improve under any system of tenancy which has hitherto or may hereafter be devised. The changes for the better in its condition, so devoutly desired, can only be secured through the stimulus of personal ownership and the adoption of better methods of farming. The old English system of landlord, tenant, and farm laborer engenders jealousies, supports caste, and keeps all parties concerned discontented and unsatisfied.

While it is to be deeply regretted that twenty-eight per cent. of all the farms in the United States are leased to tenants, we should rejoice that only seven per cent of those in New Hampshire are rented. If there be upon this planet any substantial foundation upon which national prosperity can securely rest, it will be found in an intelligent, Christian yeomanry which owns the land which it tills; such as New England has heretofore produced, and, it is to be hoped, will never cease to maintain.

# THE FOURTH PROPRIETOR.

In 1853, after it had been leased to tenants for some twenty years, the Fourth Proprietor assumed control of the Farm of the First Minister. He knew no farming, but he had agricultural blood in his veins, as a descendant of the seventh generation in a direct line of farmers back to their first Anglo-American ancestor, an English yeoman, who settled at Lynn, Mass., in 1630, and believing in gospel and gunpowder, became a member of the Church of Christ in that town, and a founder of the Ancient and Honorable Artillery Company of Massachusetts.

The farm then consisted of:

Tillage, 73 acres, 37 square rods.

Pasture, 68 acres, 12 square rods.

Low meadow, 47 acres, 69 square rods.

Forest, 215 acres.

Water, 20 acres, 70 square rods.

Amounting to 424 acres, 28 square rods.

## TILLAGE.

Island	46	acres	, 172	rods
Six Acre Lot				
Waternummons Field				
House Lot				

#### PASTURES.

Island Pastures	68 acres, 12 rods.				
LOW MEADOWS.					
Improved Meadow	47 acres, 69 rods.				
FORESTS.					
Livermore Lot	215 acres, 00 rods.				
PONDS.					
Horse Shoe Pond	20 acres, 70 rods.				
Whole Area of Farm	424 acres. 28 rods.				

The tillage land was in low condition, the pastures had been closely fed and, together with portions of the meadows, were largely encroached upon by willow, alder, and other bushes.

The buildings consisted of a one-story cottage, two two-story houses, two cattle sheds, a wood and carriage house, a hog pen, a bacon house, and several other small structures. No one of these was covered with a sound roof. Each, together with long lines of farm fences, needed speedy repairs.<sup>1</sup>

To the present proprietor, who then possessed very little agricultural knowledge and no experience, these neglected lands and dilapidated buildings afforded larger opportunities for making improvements and sinking money than the first survey of them revealed. But a few months' association with farm hands, stone layers, carpenters, and other mechanics, accompanied by a painful void in the abdomen of his pocket-book, gave him unwelcome information which he could have obtained so well from no other source. He learned for the first time that the glory of being a land holder was an expensive one.

But, he had literally put his hand to the plow and he pushed on into his unknown future, thinking that he "who looked back" was not worthy of agricultural success. He observed

<sup>&</sup>lt;sup>1</sup> For condition of First Minister's Farm in 1853 see Appendix E.

as he went, he thought, he recorded his experiences and studied those of others; sometimes cheered, sometimes depressed, but determined to sooner or later know his business.

On one occasion, however, he became discouraged. The farm was not paying expenses, and he confided to a neighbor of twice his years and far broader agricultural experience, his purpose to sell it. "Pooh!" replied his confidant, throwing back his head, until his eagle beak of a nose hung down his face like a bush scythe on a tree, "Pooh! I don't think much of a young man who is not smart enough to keep what was given to him."

This remark stung the young proprietor's too thin skin, which has grown thicker since. When, ere long, his temper had become serene, and cool reflection had come to his aid, he concluded that his sympathetic comforter held a justifiable opinion. The old farm was not sold. Thus far, its present owner has been "smart enough to keep it."

## PLOWING.

The important fact was ere long made known to the present owner, that his hired men worked for pay and not because they loved him, and that if their pay was to come from the farm's income, the farm's products must be largely increased. It was being run upon the old rotations of an hundred years ago. Exhausted sod ground was broken up in the fall, manured the next spring, and planted to corn. The following year it was sown with oats, to be cropped with grass the succeeding six.

Hay, the leading crop, was produced at the rate of some fifty to sixty tons a year. A part of this was of good quality, but most of it classed under the uncertain term of "stock hay," and varied all the way from fair, fairish, and middling fair, down to mean, meaner, and meanest.

A farm never stands still. It either improves or deteriorates. Conscious that, for aught he knew, its three former owners,—a minister of the Gospel, a judge of the Common Pleas court, and a captain of Cavalry, might, from some locality beyond his ken, be watching his movements, the present proprietor felt that, if he neglected its improvement, there might be such a

rattling at night of dry bones about the headboard of his bed as would drive "sleep from his eyes and slumber from his eyelids." He therefore determined to break up as fast as he could his exhausted, turf-bound fields, and after thorough pulverization and fertilization seed them anew.

This work was begun in 1853, by breaking up a section of run-out grass land to the depth of eight and a half to nine inches. The favorite breaking-up plow then in use in his locality, was the old cast-iron "Lion plow." Its successful operation on interval turf land required a plowman, two teamsters, and eight oxen. It turned a fifteen-inch furrow slice perfectly flat, shutting it in closely against its neighbor, and leaving the ground as smooth and solid as before.

Upon the soil thus inverted, manure was spread at the rate of ten cords per acre and buried with a seed plow, running some four inches deep. Thus prepared, the eight years' rotation above mentioned began.

The present proprietor will never forget his first attempt at plowing. He took his initial lesson in an effort to plow under manure upon an inverted sod. The plow seemed aware that a green hand was between its stilts, and showed a persistent determination to either dive under the furrow slices or scoot from the ground. To keep it in place, he expended all his strength, sometimes turning it one way and again the other; sometimes lifting it up, and at others bearing it down; all the while making very poor work and learning the important fact, that a balk in one furrow secured the imperfection of the next. At the end of two or three hours, he was the "tiredest" man ever seen on the First Minister's Farm, and he had reached the conclusion that plowing was very hard work. But first conclusions are not always correct.

It at length occurred to him that if he would restrict his efforts to the guidance only of the plow and leave its draft to the team, he might save both muscle and perspiration. This idea was an inspiration. From that time to this, he has allowed his teams to do his plowing, contenting himself with the simple direction of his implements.

Following a plow all day long in the constant endeavor to make every furrow like every other perfect furrow, may seem

to some a monotonous business, but every good plowman will tell you that it is not so. Each furrow makes a little history of its own, of much interest to him who turns it. If his plow shows a fixed disposition to run away, he notes the fact, and, if it be a good one, at once changes its draft line. If a poor one, embodying faulty lines of construction, he dismisses it with his blessing, as Abraham did Hagar, and seeks a better one. No farmer can afford to use a poor plow.

The practical plowman soon learns that the basal idea in every plow is a combination of two wedges, one to move horizontally, and the other perpendicularly; the office of the first being to sever the furrow slice from the subsoil; while that of the second is to raise and turn it downside up. He also sees that if these wedges are too blunt, and their cutting edges are kept dull, unnecessary resistance will be encountered and the amount of power required to draw the plow through the soil will be unduly increased.

A careful experiment made, some years since, with two popular plows in breaking up a piece of tough sod-land, revealed the fact that the turning of a furrow eight and a half inches deep and fourteen inches wide, by one of them, required an expenditure of power amounting to eleven hundred and fifty pounds; while by the use of the other, the same work was done at an expenditure of only eight hundred. As the cost of plowing is largely in that of the power used, the comparative merits of the two plows were very apparent.

When, in the course of time, experience had taught the present proprietor many of the points in good plowing, the question arose in his mind, why do you and your men and teams walk hundreds of miles every year to plow? Readily came the answer, "to pulverize the soil." To the next question, "Does the old 'Lion plow,' which simply lifts the furrow from its bed, and after turning it lays it down again as solid as before, do that?" To this inquiry the answer was simply "No."

Thereupon the old "Lion" was left to "innocuous desuetude" and a successor was employed which turned every furrow slice with a twist, and rested its off edge upon the near edge of its neighbor. Thus turned, partial pulverization was

secured and an open space left at the bottom of each furrow, from which the forces of nature might attack the inverted sod and aid in its disintegration.

With the best hand plows which he could get, it cost the present owner of the First Minister's Farm from ten to twelve dollars to break up an acre of his interval sod land to the depth of from eight and a half to nine inches. To do this, as before remarked, required three men and eight oxen, or a team equivalent thereto. In the course of time the Sulky plow came to the farm and came to stay. No less than three have here done service; first, a "Cassidy;" later, a "Syracuse," and lastly a Taylor & Belcher. Their distinctive points of excellence cannot be here detailed. It must suffice to say that, with a slightly diminished depth and width of furrow, the cost of sod-plowing has been reduced to about one half of its former amount; while the privilege of riding has been accorded to the plowman in exchange for that of going on foot. For similar reasons, the old spike-tooth harrow has been remanded to the retired list.

Next in importance to fertilization, in field culture, is soil pulverization. There is no better place to study this essential work than between the handles of a good plow swinging free in the furrow, behind an even, steady-moving team. The comminution of the furrow slice as it is detached from its bed and rolled over, will suggest to an intelligent plowman that the vast envelope with which Omnipotence has wrapped this planet is all plant food; stored for the farmer's use in a form to insure its preservation, and that he has but to separate its numberless particles and expose them to the action of heat and air, water and frost, to secure from them assimilable sustenance for the plants growing upon them. Furthermore, as he thinks back into the agricultural past, it will occur to him that old Jethro Tull, who, two hundred years ago, taught that pulverization might be substituted for fertilization, was less of a crank than his neighbors thought him to be. In time it will dawn upon him that the former is cheaper than the latter and that if he will, he may plow more and manure less to his own pecuniary advantage.

### THE COW PASTURE.

An early subject to claim the attention of the present proprietor was the condition of his cow pasture, about one third of which had been usurped by a vigorous growth of hardhack, black alder, cold water, and willow bushes. The Bible tells us that the advent of sin upon the earth was followed by "thorns and thistles," and that our first ancestor was commanded by his Maker to "replenish and subdue it." The alternative presented was the subjugation of these intruders or, in the near future, no milk.

He accepted the former, but, it must be humbly confessed, with little knowledge of the best means of its attainment. Kindly disposed neighbors told him that if he would cut his bushes on two certain days in August, "when the sign was in the heart," he would surely kill them. As it was impossible with his established farm force to cut ten acres of them, varying in height from one to twenty feet, in two days, he was constrained to disregard their disinterested advice.

But extermination must be accomplished somehow, and he began it by mowing the hardhacks (Spirca satiscifolia). This temporarily improved the appearance of the pasture, but the following season brought them all back again in increased numbers. Ploughing was next tried. Their stalks were turned downwards and their roots upwards. They were literally uprooted, but while most of them were thus killed, their roots lay upon the ground's surface, black, tough, fibrous masses, each one resembling a big darky's scalp, which neither plow, harrow, or other implement, would reduce to pulverization.

But, inasmuch as fire will do what no other agent will, some of these were gathered into masses and burned, and their ashes paid in part the expense of their reduction. The remainder were used as the substratum of a farm road then in process of construction. Whether by this time, the forces of chemistry have reduced these to their primal elements your speaker knows not. He does know that that road has never settled, in spite of time and frosts and floods.

<sup>1</sup> Genesis, 3:18.

<sup>&</sup>lt;sup>2</sup> Genesis, 1:28.

This work of subjugation extended through parts of as many years as it has taken minutes to narrate it. It taught the inexperienced farmer how to kill hardhacks, which should have never been allowed to grow.

The plow sufficed for the uprooting of small willows. As fast as a bout was plowed, the stalks and roots were pulled out by hand, to be afterwards gathered into heaps for burning. Any not loosed by the plow were dug out by the bog hoe. This operation left the ground in fit condition for further manipulations.

But willows five or six feet high, or higher, did not obligingly yield to this treatment. Their roots were too large and descended too deep. The axe was here found necessary. Severing them at an inch or two below the ground's surface, just where they changed to stalks; in short at their necks, where one cuts off a mean dog's tail, they all died satisfactorily. Whenever water bushes were encountered, extermination was found only in substantial extraction.

The black alder generally grows in bunches of a dozen or more stalks springing from one cluster of roots. Cutting each stalk separately above ground proved a slow, laborious and ineffectual work, even if done on the right day in the month of August, when "the sign was in the heart." It was found that each bunch must be severed from its roots below the ground's surface, or it would sprout and grow again. Questions as to why the Almighty allowed sin to enter the world, and why he endowed weeds and bushes with high vitality have never been satisfactorily answered. If, however, they have been intended for human discipline, the present proprietor has great reason for gratitude.

But experience, ere long, developed an effectual method of subduing the largest alders. It consisted:

- 1. In making a circular incision with an axe, a few inches deep, around the outer roots of a clump, similar to that formerly made by the old-fashioned doctor, with his dull lancet, around the tooth he was about to extract with his accursed key, of which some of you may have painful recollections.
- 2. By carefully introducing to the groove thus made, a small, short linked, cable chain, and so hitching it to the neck of the

roots that, when drawn to its final grip, its pull was an upward and onward twist.

After these preliminaries, the slow, steady pull of four good seven and a half feet oxen, with heads slightly lowered, as they straightened themselves horizontally under the guidance of a skillful teamster, sufficed to extract and lay prone upon the ground the most formidable clumps of these intruders.

You must pardon him, Mr. Chairman, Ladies and Gentlemen, if the present owner of the First Minister's Farm just here and now, confesses to a love for a good yoke of oxen. There are few finer types of animated substantiality than a mild-eyed, clean-faced ox, possessed of a head surmounted with a comely pair of horns, behind which a strong neck and shoulders develop into a straight back and well-rounded body, terminating in deep hind quarters, and a well-inserted tail; the whole supported by four muscular and well-formed legs.

Mrs. Austin, his daughter, tells us that that sharp-witted English divine, the late Sidney Smith, kept a four-ox team, and gave to the animals composing it appropriate names. Of the first yoke, he named one "Tug," and the other "Lug." Of the second, he called one "Haul," and his mate "Crawl"; names quite as significant as are those of Bright, and Berry, and Buck, and Broad, so common with us.

Daniel Webster also loved oxen.<sup>2</sup> It has been said that one of his latest earthly enjoyments, after he had gone down to his Marshfield farm to die, was to sit in his doorway and look admiringly into the honest faces of his oxen, as they stood before him, and to lavish upon them the noble affection, which, contracted in youth upon his father's farm, twenty miles below us, grew stronger with his years, and was as lasting as his life.

Remote be the day when cattle husbandry shall be banished from the farms of our beloved state. "Let that day be darkness; let not God regard it from above, neither let the light shine upon it."

<sup>&</sup>lt;sup>1</sup> Life of Sidney Smith, Vol. 1, p. 145.

<sup>&</sup>lt;sup>2</sup> Harvey's Reminiscences of Daniel Webster, pp. 276-278.

<sup>3</sup> Job, 3: 4.

#### FRESHETS.

The tillage portion of the First Minister's Farm, as before remarked, is a section of Merrimack River interval.¹ For one hundred and twenty-two rods, the river forms a part of its northern boundary. As one stands upon its bank, some fifteen feet above its surface, when at its summer level, and looks up and down its course, it seems a peaceful stream, and its quiet flow suggests only the gentle lapse of the later years of a well-spent life. Its channel has a width of some five hundred feet, and its depth rarely exceeds fifteen. Unless ruffled by the wind, its surface is as smooth as a mirror and reflects the trees and shrubs and flowers which line its way.

But it is not always thus. At times, it rises in its might some five, ten, fifteen and even twenty feet; like a tawny giant from his sleep, increasing its volume and accelerating its flow. So long as it keeps within its banks, its current, though strong, is comparatively harmless.

When, however, swollen by the waters of excessive rains, particularly if these be combined with those of melting snows, it overflows its channel, its course is capricious, impetuous and

¹The formation of the Concord interval is clearly revealed upon a careful observation of the adjacent territory. When, in a prehistoric age, the great ice cap, which covered the northern part of this continent, receded from the Merrimack valley, it left behind it a bed of glacial drift extending from one side to the other of it. Upon the middle portion of this was subsequently laid another of modified drift, through which the river has pursued its devious way, cutting away its banks on alternate sides, all the while deepening its channel and emptying its sand-laden waters into the ocean at Newburyport. This it continued to do until the rocks of the underlying formation arrested its descent. Since then, its depth has not been changed, but its channel has all the while been moving laterally easterly and westerly, until it has passed over the entire interval time and again.

Most of these lateral movements have been gradual. Some of them, however, have been violent and extensive. The September freshet of 1828 severed along tongue of land of some thirty acres, from the east side of the river and transferred it to the west side and by a new channel then made converted it into an island, since known as Bradley's Island. Again, in January, 1831, the river cut off Hale's Point, near by, and transferred it from its west to its east side.

These changes have generally resulted from natural causes. But several have been made by other agencies. In 1846, or thereabouts, the Northern Railroad turned all the water of the river at Sewall's Island into its eastern channel, which it has since broadened at the expense of much valuable land. At about the same time, this railroad cut a new channel across the base of Goodwin's Point, thereby transferring a large tract of land to its west side and making it an island.

irresistible. If, as is sometimes the case, its waters are freighted by ice or logs, the injury to lands, bridges, and buildings near its banks is liable to be serious. Turbid as the yellow Tiber of old Rome, it buries its intervals from sight and strews them with sand, logs, and miscellaneous debris.

The Merrimack freshets, like those of other rivers, vary much in magnitude and results. The river usually rises from its previous level for some twenty-four to thirty-six hours after a flood-producing rain. When its waters begin to fall, a north-west wind arises and accompanies their subsidence. This pushes the current, accelerated to a speed of some four miles an hour or more, against the leeward bank and so undermines it that strips of land, varying in width from one to thirty feet, fall into the stream and are lost. The southerly course of both river and winds cause its erosions to be generally made upon the southerly bank.

The thread of the stream almost always hugs the abraded shore, and the line of its withdrawal on one side indicates to some degree the width of its encroachment on the other. In other words, the loss of land by a proprietor on one shore indicates the gain of his neighbor on the opposite one. This transfer is without consideration, but so long as it is gradual the law does not interfere.

Almost every year until 1870, the successive proprietors of the First Minister's Farm had more or less land thus taken from them and transferred to their neighbors on the opposite bank of the river. One of these used to show his unclean teeth and note with a covetous eye the yearly increment to his farm.

The freshets of the Merrimack vary greatly in height from one year to another. A tradition somewhat vague speaks of a very high one in 1784. Authentic records exist of many of the abnormal ones occurring since 1818, a period of seventy-seven years.<sup>1</sup>

East Concord bridge was carried off on the 5th day of April, 1819; again on the 12th of February, 1824, and still again, together with the Free bridge, on the 8th of January, 1841, when at one time the river rose four feet in thirty minutes at

Sugar Ball ferry. Two years before this, on the 26th day of January, 1839, it rose fifteen feet in as many hours, and swept away all the Concord bridges with the single exception of Federal bridge. This stood until April 11th, 1872, when it was again carried away and the one near the south end of Main street was so damaged as to require a partial rebuilding.

But the highest freshet on the Merrimack, of which any authentic record has been preserved, was that of April 13th, 1895. There had been a moderate rise of the river early in this month which had partially subsided by Friday, the twelfth, when, about its head waters, a rain commenced and continued through that day, Saturday, and until the evening of Sunday. This caused a second rise which, augmented somewhat by the waters of dissolving snows, proved unprecedented.

With the exception of a few square rods on Waternummon's hill, adjacent to the track of the Concord & Montreal Railroad, the entire Concord interval was covered. At its highest stage, the water was twelve feet deep on the top of Sewall's Falls dam. South of West street, the tracks of the railroad just mentioned were submerged for the distance of one or two miles, as were those of the Northern Railroad for some three miles north of Bridge street. On the floor of one of the barns on the Farm of the First Minister, the water stood two feet deep and its proprietor then learned by a new experience that the immersion of hay in cold water for twenty-four hours does not improve its quality, for ordinary purposes. He accordingly sold the most he had which had been so treated to milk men, as soon as he could and for what he could get.

By this freshet, many of the houses upon the interval below the gas works, in Concord, were for a time surrounded by water, and some of them were temporarily vacated by their inhabitants. Four were undermined, two of which were moved from their foundations. The logs, timber, cord wood, old fences, discarded railroad ties, and other multifarious debris brought disgust to the owners of land upon which they finally rested. And the flood came freighted with sand also, which it deposited at its own sweet caprice, sometimes where it would do good and sometimes where its presence was as unwelcome as it was annoying.

It is, however, "an ill wind that blows nobody any good." The Farm of the First Minister shared the fortunes of its neighbors. On some portions of it the water stood, at its highest, a dozen feet deep. Here and there, undesired coatings of sand were left, together with worthless deposits of brush and wood. But, thanks to its rubbled banks, it lost no land and its low meadows were elevated in places, to their improvement, some four or five inches, by the sand left upon them.

Those sections of the farm's grass lands which were in best condition were most benefited by this inundation. The proportion of Timothy to the other grasses was greatly increased. More or less of it grew to the unusual height of four feet and occasional stalks were found which measured four feet and a half, and some even more.<sup>1</sup>

#### DRAINAGE.

An examination of the meadow land of the First Minister's Farm revealed the fact that some fifty acres (47 acres 59 rds.) were either submerged or too wet to produce anything of much value.<sup>2</sup> It also showed that the water table beneath it corresponded with the surface of Horse Shoe pond, by which it was partially surrounded, and whose summer level was several feet higher than the river into which its overflow was discharged, at a point two thirds of a mile distant. It was apparent, therefore, that the sinking of this water-table would drain the lands above it to a corresponding depth, and increase considerably the farm's arable area.

That this depression of the water-table was practicable was clear. Whether the cost of draining it would outweigh the benefits resulting therefrom was not altogether certain, but as Pope says, "hope springs eternal in the human breast," and inexperienced youth is often bold. It was decided to incur the expense and take the financial chances of the operation.

<sup>1</sup>It was generally felt that such a freshet would not be likely to occur again for a century, but in this very March, 1896, on the 1st, 2d, and 3d days there was an ice freshet of nearly equal height.

<sup>2</sup>This was a low section of land occupying an abandoned channel of Merrimack river, which had been formed by successive deposits of aquatic vegetation and silt.

<sup>3</sup>When a level was run the surface of the river was found to be six feet lower than that of the pond.

The plan adopted was to lay a drain from the river inland for one hundred rods. This was to be constructed of green, white pine, two-inch planks, free of sapwood. It was to be twelve inches wide and eight inches high on the inside, affording an interior section of ninety-six square inches. Beyond this an existing open drain was to be followed onwards to the pond.<sup>2</sup>

An excavation, fourteen and a half feet deep, five feet wide at the top, and three at the bottom, was commenced at the river bank in September, 1853, when the river was at its lowest stage.

The plank conduit, made in sections of eight feet each, was placed in position as the excavation progressed. These interlocked at the ends, and were substantially water tight when covered.

It was found upon trial that an ordinary shoveller could throw dirt upon the bank to a height of about six feet, and the work was commenced with an initial opening of that depth. Deeper excavations were next sunk in short cuts about ten feet long, and much of the dirt removed therefrom was thrown backwards upon the successive conduit sections as they were put in place, so that only a portion of the earth moved was thrown outside the ditch. The ground gradually fell off as the excavation was carried inland, and at the end of the first fifty rods its original depth of fourteen feet and a half was reduced to ten. At this point the work was suspended for a time. Subsequently resumed, another fifty rods of similar construction was laid, in excavations varying in depth from two feet to ten. Hence, onward to the pond, the old open ditch was deepened as found necessary, and for about eighty rods its bottom was floored with boards. These, constantly covered with water,

<sup>1</sup>Glazed Akron pipes were not then in use, and it was assumed that heart white pine, kept at a temperature nearly uniform and always wet, would not decay. Experience has thus far sustained this assumption and this drain, worn somewhat by the friction of the water passing through it, seems as sound as when first laid, forty-two years ago.

<sup>2</sup>The experiment may have been a rash one, as underdraining was then very imperfectly understood and but little practised in New Hampshire. Mr. William Connor and Judge Henry F. French, of Exeter, were the only persons within the writer's knowledge who had then done any systematic drainage in this state.

have never decayed. They define the bottom of the channel and afford firm footing to a workman when engaged in clearing it of aquatic plants and the precipitated silt of freshets.<sup>1</sup>

This drainage channel of covered conduit and open canal has a total length of about two thirds of a mile (222 rods). It has lowered the water-table, under and around nearly fifty acres of land, about thirty inches. Since its completion laterals of stone, brick, plank, and tiles, have been laid, as experience has suggested their utility.

While the cost of this enterprise has been considerable it has not equalled the increased value of the land which it has improved. Some sections of this, which had ever before been too soft to allow the passage over it of cattle and horses, can now be plowed and harrowed. On others, where formerly only sedges grew, tame grasses flourish. The mowing-machine, horse-rake, and hay-cart are no longer strangers to them. Others, I regret to say, are still too wet for arable crops, and for the want of an out-flow sufficiently low, must ever remain so, unless raised above their subjacent water-table by costly surface fillings.

The experience gained during the last forty-two years has pretty firmly established some conclusions in regard to farm drainage, among which are the following:

- 1. Inasmuch as drainage is a costly operation, the expense and effects of which can generally be forecast with much accuracy, it should not be extensively undertaken until these have been ascertained, otherwise expensive disappointments may be encountered.
- 2. That no drainage operation should be commenced until a satisfactory outflow has been found and a definite plan of the main, sub-main, and lateral drainage lines has been intelligently settled. Loss of money and uncertain results are likely to attend a disregard of this suggestion.

<sup>1</sup>Open ditches, although boarded at the bottom, are liable to be clogged by abrasions of their sides, particularly when subject to inundations from the larger streams into which they discharge their water.

<sup>2</sup>Experience on the Farm of the First Minister is demonstrating the fact that a lining of their banks with stone or plank will facilitate their flow and prevent obstructions from this cause. Its considerable cost is the only objection to its use.

- 3. No underdrains should be laid at a less depth than three feet, and four is a better one than three. The deeper a drain, the greater will be the area which it will dry.
- 4. The principles of land drainage may be acquired from the books, but the practical application of these can be learned only in the ditch. Any person afraid of soiling his hands or his clothes had best keep out of it. It is a wet and dirty business, but it unfolds to the agricultural student some of the mysteries of aqueous circulation and changes worthless bogs to fertile fields. The cutting of his main ditch through the mud, against the protestations of the frogs, turtles, water snakes, and muskrats, to the open waters of Horse Shoe pond, afforded the present proprietor a gratification, less indeed, but akin to that experienced about the same time by the brave Arctic explorer, William Morton, while forcing his way through the ice floes and snow of Smith's strait, to the northern polar sea.
- 5. Drainage does not change the natural characteristics of a soil. Silicious, peaty, or clayey soils before drainage, remain such after their surplus water has been removed. Therefore, from an agricultural standpoint it is generally bad farming to drain poor land. Its real value is as little enhanced thereby as the true character of a mean man is elevated by his election to an office which he is unworthy to hold.
- 6. Open ditches should be avoided so far as possible. They embarrass cultivation, are liable to obstruction, and occupy much valuable land. In the long run they are the least effective and most troublesome.
- 7. Thorough drainage to be most effective must, as its name implies, be thorough.

#### RUBBLING.

Up to 1850, as before remarked, the Farm of the First Minister had been losing narrow strips of shore land on its northern border every year by encroachments of the river. These also threatened, by cutting a new channel, to transfer to dry ground both the East Concord bridge and that of the Boston, Concord & Montreal Railroad.

It occurred to the parties in interest that the time had fully come to arrest this destructive wandering of the stream. For

centuries, how many we know not, it had staggered wantonly over its interval, reminding one of jolly old Silenus on a spree, drunken, reeling, and reckless.

Could this be done? It was decided by the officials having in charge the aforesaid bridges, the present proprietor of the First Minister's Farm, and his adjoining neighbors to coöperate in an attempt. It had been learned by inquiries that similar encroachments by the River St. John, in New Brunswick, had been stopped by lining its banks with trees and brush, pinned down by stakes; and that, elsewhere, a like result had been reached by coatings of stones, of sufficient weight and thickness to withstand the force of moving ice and water.

It was finally concluded to coat the bank with rocks, and work was begun and prosecuted by hauling to the verge of the bank hundreds of loads and afterwards placing them upon the slope. The largest were placed first and formed a footing beneath the surface of the water to sustain the smaller ones subsequently laid above them.

Some forty-four years have since elapsed and the river has made no impression upon the bank thus protected. Trees have sprung up from between the rocks—maples, willows, alders, poplars, and some others, whose roots hold in place the stones which, in turn, prevent the washing away of the soil upon which they grow:—an instance of reciprocal aid which suggests that our success as farmers will be greatly promoted by good fellowship and mutual dependence.

The late Col. David M. Clough used to say that it was the opinion of some men that a hole would wear longer than a patch, and they therefore went with their coat sleeves open at the elbows. For this or some other reason, satisfactory to himself, the owner of the upper section of this bank has allowed the river to attack it in flank and undermine it. From this neglect, he has lost most of his rubbled line, which a little labor and watchfulness would have saved.

Regarding this kind of work, a few suggestions just here and now, may not be out of place:

1. It should be done when the water is at its lowest stage; as that is the time most favorable for sloping a bank and placing the stones which are to cover it.

- 2. The stones should be of sufficient weight to prevent their removal by ice or water.
- 3. Round stones had best be employed to make a footing and to cover submerged portions of the bank. Such are easiest got into position. Quarry grout and other angular stones, cut into slabs eight or ten inches thick, lie firmest above the water line and are to be preferred.
- 4. If the bank be a high one, the rubble need not be carried to the top of it, nor cover all the surface it occupies. If three quarters of it is covered, erosion will be prevented.
- 5. The requisite amount of stone may be often lessened by constructing the submerged footing of trees, laid parallel with the bank with their tops up stream. These may be kept in place by rocks laid upon them, and, arresting moving sand, will be soon buried beneath it. Kept perpetually wet, they will never decay.
- 6. It is well to encourage a speedy growth of bushes and trees along a rubbled bank. They will be sure to spring up sooner or later of their own accord, but their advent and growth may be hastened by plantings. Whenever the river overflows its bank, these will arrest floating débris and cause a precipitation of suspended sand near the channel.
- 7. I give no estimates of the expense of this kind of work. It will depend largely upon the height of the bank to be protected, the depth of the water and the cost of labor and materials. Hundreds of loads of the stones used upon the bank described were taken from useless stone walls on neighboring upland farms. The cost was one dollar and twenty-seven cents per linear foot. It might now, doubtless, be done for a good deal less.

### PRODUCTION OF HAY.

A novice in farming is quite sure to make mistakes, more or less costly in proportion to the magnitude of his business. The present proprietor expected no exemption from the action of this rule, and determined at the outset to watch carefully the results of his operations and record them in a cash book. This is to the farmer what his log book is to the seaman. It gives him his financial latitude and longitude and oftentimes saves

him from the perils of an agricultural lee shore. He runs at random without it.

The present proprietor followed at first the agricultural routine of his neighbors. He had a fondness for cattle and raised beef and milk for the Concord market; but, inasmuch as his best hay bore an average price of seventeen dollars a ton, his cash book indicated that the production of beef and milk was unprofitable. He raised a few crops of wheat, but so fully charged with gluten was it found to be that a slice of bread made from it might be thrown over the house and be sure to fall unbroken on the other side. His barley headed imperfectly, and his rye crops were diminished by the uninvited presence of witch grass. Hay, however, and oats and corn and potatoes paid fairly well.

It by and by occurred to him that, instead of raising a little of many things and some of them at a loss, he had better raise a considerable of a few things and, if possible, at a profit. He accordingly took a new departure, with hay production as his main objective point, accompanied by such acreages of corn, oats, and potatoes as his personal needs might require. The farm stock was reduced to three good horses, two good straight-backed oxen, one cow, and two hogs.

But, some of you may ask, how sell hay and keep no stock to maintain the fertility of the fields producing it? In answer it may be said that the situation of this farm is exceptional. It lies within a mile of the New Hampshire state house, around which are located the stables which consume its hay and have manure to sell at five dollars a cord. Of this, one ton of hay will ordinarily buy three times as much as it would make, if fed upon the farm.

It was soon found that the old rotation before mentioned would not secure success in hay production. Its maintenance required too great an acreage of other crops. The surface of the ground, lying undisturbed through eight year periods, became compacted by freshets and grass roots and too greatly reduced in fertility to yield satisfactory returns. As you all know, when the product of a hay field falls below one ton per acre, the hay declines in quality as well as quantity, and there is a double

loss. Weeds come in to prod the farmer to his duty. He is burning his candle at both ends.

The length of the old rotation was accordingly reduced from eight to five years, the first being devoted to corn or oats, and the remaining four to grass; any part of the land not wanted for the first mentioned crops being sown at once to the latter. By this change, the hay raised has been increased in quantity and improved in quality.

Stable-keepers do not want fine hay, grown at the rate of a ton or three quarters of a ton per acre. They desire that of a coarser quality, which grew at the rate of from a ton and a half to two and a half tons per acre. And if he would have them buy it, the farmer must furnish the kind which they desire. As the late Capt. John H. Moore of Massachusetts once put it, when asked the variety of strawberries which he raised, "I raise the ——————— variety, the meanest variety, the variety the Boston people want."

The objective point proposed at this departure from the old course of cropping, was the production of hay at an average rate of two tons per acre per annum. Its attainment has been found dependent upon certain inexorable conditions:

- 1. A thorough pulverization of the soil every five years.
- 2. An uninterrupted maintenance of adequate assimilable plant food in the soil.
- 3. Reseeding with sufficient frequency to insure a good stand of grass plants at all times.

These conditions have been pretty satisfactorily met by sod breakings seven or eight inches deep every five years, followed by thorough pulverizations by the harrow; by a careful mixture with the soil of six cords per acre of good stable manure, and an even application of seed subsequently rolled in. It is at once apparent that under this rule five acres of a twenty-five acre grass field will require plowing, manuring, and seeding each year.

Sod ground may be broken up in spring, summer, or autumn, as may be found most convenient. On the First Minister's Farm this is done in August or the first half of September, if the ground is to be sown to grass, and immediately afterwards manured, harrowed, and seeded. Ordinarily the plants get

well started before the season closes, and all annual weeds, which chance to spring up, are killed by the frost. The next season, from three quarters to a full crop of hay may be expected.

If land is to be devoted to oats or corn, it is usually broken up in October or November. Grass seed is sown with an oat crop the next spring, and land in corn, as soon as the crop has been removed in the fall. In the latter case, the grass generally reaches the height of an inch or two before the ground freezes. The next year it gives one half or two thirds of a crop not always free from weeds.

I need not remind so intelligent an audience as this that the best implements attainable should be employed in harvesting a hay crop. Labor is always dear in haying time and the best are the most profitable.

The first mowing machine introduced to permanent residence in Concord was used by Richard Bradley in 1866 or 1867. It was an early "Ketchum," and was provided with but a single driving wheel. Two years later the present owner put upon the First Minister's Farm a one-horse "Wood" machine, which cut a swath three feet wide and worked well on perfectly level ground. He remembers distinctly the contemptuous remark of his oldest hired man, as he looked at it. Stretching out his muscular arms, he said, "I guess the old-fashioned machine is as good as those of the new sort." It became evident, however, in a few days that he and his associates had pocketed their pride and were willing to allow the "new sort" to do all the mowing it would.

The next season a two-horse "Wood" mower, much improved and having a four-foot cutter bar, was substituted for the one just mentioned. None but "Wood" machines were used for many years and until an "Eastern Star" was purchased and, with one or two successors, did fair work. These, however, gave way in turn to the four and a half cut "Wood," one of which is still in use.

Inasmuch, however, as the improved "Buckeye," whose knives driven by an endless chain cut a swath of six feet, has been found to require little more power than the four and a half cut "Wood," it has been welcomed to the farm and allowed to do the largest part of its mowing.

The first horse rake ever used upon the First Minister's Farm consisted of a horizontal head of wood, some eight feet long, carrying a single row of teeth. Upon this stood two perpendicular handles and a few standards to prevent the gathered hay from slipping over the teeth when in motion. It was drawn by long tugs attached to the ends of this head and its operation required the services of a man, a boy, and a horse. When filled, the boy backed the horse, and the man, after drawing the rake from underneath the windrow, lifted it over and started it for the next one.

This rake was in time superseded by the wooden revolving rake. With this the present proprietor began his haying experiences, and it was in general use in the Merrimack valley for many years. But this, in turn, had to give way to the spring-toothed rake. When it had been mounted on wheels, so that the lame and the lazy could ride, it was adopted as the rake of the farm. For some years past, a couple of "Tigers" have done its raking. To these has been added the present season a "Worcester."

Pitching has almost always been done by hand. A horsefork was introduced and used somewhat by the third proprietor, sixty or seventy years ago, but since then hand pitching only has been practised. This horse-fork has been preserved and weighs some twenty to twenty-five pounds.

At the present time, the larger part of the seeding to grass is done as follows: The land is usually broken up during August or the first half of September and partially harrowed. There is then spread upon it six cords of good stable manure, which is immediately incorporated with the soil by "Cutaway" and Acme harrows. The seed is then sown by a seed sower attached to a "Tiger" horse rake, and the ground is made smooth by an iron roller, which compacts the soil about the grass seeds.

Thus far, stable manure has been generally used as a fertilizer in the production of grass. According to the present proprietor's best knowledge and belief, it is, all things considered, the cheapest and the best. Whether hay can be profitably raised by commercial fertilizers alone, is a question which he has repeatedly asked, and to which he has as yet received no

satisfactory answer. His own experience has been adverse to its use as a seeding down enrichment of ground.

As at present advised, he would expect best results from its use in connection with barn manure. If, for instance, upon seeding it to grass, the land was dressed with half the usual quantity of the latter, and after two cuttings of grass was annually top dressed for the next two or three years, with five hundred pounds of fertilizer, profitable results might follow. Experimentation might also demonstrate that, on a particular soil, only a part of the several ingredients of the fertilizer were needed. On this line, we farmers must all turn chemists; making laboratories of our fields and, from repeated trials of our own, learn what application is best for each and every one of them.

Long experience has shown that, on an acre of the best grass land of the First Minister's Farm, such a five years' course will afford an average of two tons a year, or ten tons in five years, worth in the Concord market an average price of seventeen dollars a ton, and amounting to

\$170.00

The average cost of these ten tons will be about as follows:

Sod breaking,	\$4.50	
Six cords of stable manure spread on t	he	
ground at \$6.50,	39.00	
Working in the same,	3.50	
Seed and sowing,	2.50	
Harvesting 10 tons at \$3 per ton.	30.00	
Marketing 10 tons at \$1.25 per ton,	12.50	
Use of implements,	2.50	94.50
Profit in five years,		\$75.50

While this system may not suit the majority of New Hampshire farmers, it may, perhaps, be suggestive of some other which will. Two or three points may be noted as of universal application.

1. The species of grasses cultivated should be such as one's market calls for. Their number is not great. Of the two hun-

dred and twenty-five varieties mentioned by the late Secretary Flint, a dozen or so comprise all which need concern us.

- 2. The varieties should be suited to the soil upon which they are expected to grow. While witch grass grows almost anywhere, it avoids the rich, wet soils in which foul meadow delights. Herds grass prefers a moist, fertile loam. Red top grasses do not flourish on dry soils. Each variety has its preference which, as far as possible, should be met.
- 3. Our grass lands should be manured and reseeded as often as need be, if we seek maximum crops at minimum cost.

The present haying equipment on the First Minister's Farm consists of four horses, one yoke of oxen, two mowing machines, one cutting a swath of four feet and a half and the other of six, three horse rakes, one tedder, four carts and men sufficient in number for the employment of these, each furnished with a scythe and a pitchfork.

In haying, work begins in the morning, at six o'clock, sharp, and ends at the same hour in the evening. A light luncheon is served in the field at nine, and coffee as wanted in the afternoon. The grass is cut in the forenoon, mostly by a machine, the men using their scythes only when out of other work. It is raked in the afternoon when warm and put into cocks. None is allowed to lay over night in windrows. The heaps are opened the next morning and after an hour's exposure to sun and air, are tedded, if requiring it. When particularly heavy, fresh mown grass is also tedded or turned over by forks.

Carting begins immediately after dinner by two teams and is continued until all hay fit for the barn has been drawn in. In particularly favorable weather, a load or two may be housed before dinner. All the loads are pitched off immediately after being drawn in, except the last four, which are usually left on the carts over night, to be unloaded in the cool of the next morning. This arrangement gives a little time to determine as to the weather which is often very uncertain at so early an hour. With this force of men, teams, and implements, and continued good weather, an average of ten or twelve tons of hay may be daily cut, made, and stored.

The average cost, one year with another, of cutting, curing, and storing hay on the Farm of the First Minister, is about

three dollars per ton. As a general thing, the heavier the grass, the less the cost of its conversion to hay. Hay caps have been tried and discarded as unnecessary. In uncertain weather, the hay cocks are sometimes doubled up. No spirit is allowed in the fields and no haying is done on Sunday. The extra mowing machine and horse rake are kept to avoid delays by repairs in case of accidents.

#### FORESTS.

As before stated, when the present proprietor assumed control of the Farm of the First Minister, two hundred and fifty acres of it were in forest.

About sixty of these were upon the sandy plain east of the Merrimack and were covered with pitch pines (*Pinus rigida*), some of which were of primeval growth. The remainder of the farm's forest was upon the high ground rising up from the interval to the westward. This consisted of deciduous trees with which were mingled, more or less, pines and hemlocks, with now and then a spruce. They were of all ages. Many of them, however, having attained maturity were declining in vigor and value.<sup>1</sup>

<sup>1</sup>The following is a list of the principal trees and shrubs growing upon the First Minister's Farm in November, 1895:

American Linden, Tilia Americana; Rock Maple, Acer saccharinum; Red Maple, Acer rubrum; White Maple, Acer dasycarpum; Striped Maple, Acer Pennsylvannicum; Hornbeam, Nyssa silvatica; White Ash, Fraxinus Americana; Brown Ash, Fraxinus sambucifolia; American Elm, Ulmus Americana; Slippery Elm, Ulmus fulva; Butternut, Juglans cinnerea; Hickory, Carya alba; White Oak, Quercus alba; Black Oak, Quercus tinctorea; Red Oak, Quercus rubra; Beech, Fagus ferruginea; Chestnut, Castanea vulgaris; Lever Wood, Ostrya Virginnica; Black Birch, Betula lenta; Yellow Birch, Betula lutea; White Birch, Betula papyrifera; Grey Birch, Betula alba; White Willow, Salix alba, and several other species; American Aspen, Populus tremuloides; White Pine, Pinus Strobus; Pitch Pine, Pinus rigida; Norway Pine, Pinus resinosa; Black Spruce, Picea nigra; Balsam Fir, Abies balsamea; Hemlock, Tsuga Canadensis; American Larch, Larix Americana.

There were also scattered among these trees a few very old white pines (Pumpkin Pines), four feet, and often more, in diameter at the butt. Such pines were not uncommon in Concord fifty years ago, but very few, if any such, now remain.

Woodbine, Ampelopsis quinquefolia; Buckthorn, Rhamnus catharticus; Climbing Bittersweet, Celastrus scandens; Poison Ivy, Rhus toxicodendron: Choke Cherry, Prunus Virginiana; Red Hardhack, Spirea tomentosa; Wild Red Raspberry, Rubus strygosus; High Blackberry, Rubus villosus; Sweet Briar, Rosa rubiginosa; Witch Hazel, Hamamelis Virginica; Common Elder, Sambucus Canadensis; Button Bush, Cephalanthus occidentalis; High Blue,

While the present proprietor does not boast of his treatment of these forest lands, he is unprepared to criticise it with very great severity. He started with a belief entertained by older, and, as he thought, wiser men than himself, that a forest of miscellaneous trees of all sizes, ages, and conditions, had best be swept off clean, when visited by the ox team and the axe, and the land left bare for the production of a new one.

In accordance with this belief, he sold for wood and timber the entire growth of his pine lot. He also sold the land. In this transaction he made two mistakes. The first was in selling the land which he could have retained at a small discount from the whole price, not then realizing that it costs little to keep that which is of little value. The second was in not restricting his sale to the mature growth, inasmuch as the remaining trees would, in a generation or less, afford a second cutting, being then for the most part of sizes sufficient to bear with little harm the fires which swept over more or less of that plain almost every year.<sup>1</sup>

Much of his upland forest was at first treated in the same way, with the single variation that the ground upon which it stood was not sold. Consequently his woods are now for the most part of recent growths of from twenty to forty years. He sincerely hopes that his successors, whomsoever they may be, may prove wiser than has he, and adopt a more rational system of forestry. To one who has failed to do as well as he might, there is little consolation that his neighbors have done no better, or perchance not quite so well. He is, however, somewhat comforted by the thought that from a portion of the old farm's forest mature trees only have been removed, and that on this a second cutting may be made whenever his pocket-book shall have a severe attack of that empty belly ache of

berry, Vaccinium corymbosum; Winter Bush, Ilex verticellata; Sweet Fern, Comptonia asplenifolia; Pussy Willow, Salix discolor; Common Alder, Alnus serrulata.

<sup>&</sup>lt;sup>1</sup> Denuded land on the Dark Plain, in Concord, was valued at only one or two dollars an acre. If small trees are cut they afford only immature wood, measure but little and bring very little money in the market; but it may have taken half a generation to produce them and a like time to raise others of equal size. With a little care many such trees may be saved in lumbering and afford a good start for a new growth. In short, they are worth more to stand than to cut.

which the late Colonel Clough of Canterbury used to speak in early meetings of this honorable Board. Until then they will be likely to stand.

To every New Hampshire farm should belong such an area of forest as will afford to its owner as much winter occupation as his individual circumstances may suggest. Besides getting therefrom his household fuel, he can spend time profitably in thinning and pruning his trees, thereby converting much of his growing wood to timber. From a thrifty lot well cared for, the owner, sooner or later, may annually sell more or less mature trees and receive therefrom an income quite as reliable as that afforded by any other crop produced upon his farm.

It is a lamentable fact that all the older nations of Europe gave no care to their forests until they lost them. Not until a wood and timber famine had come upon them with all the disastrous accompaniments of denudation did they plant new ones. It is a more lamentable fact that the people of the United States with all their experiences to warn them should persist in following their example. For we are not only recklessly wasting our forest covering, but, with a madness almost incredible, are allowing fire to follow the axe and destroy the scant remnant which this insatiable implement may have chanced to spare. Conflagrations have been allowed to sweep over entire townships and obliterate in their progress entire villages with more or less of their inhabitants.

Mr. Bela Hubbards says in an able article in the March, 1895, number of the *Popular Science Monthly:*—" Voyagers upon the upper lakes in August last, [1894] were involved in clouds of smoke which settled over the waters. These were often so dense as to render navigation dangerous and to occasion frequent collisions. They obscured the sun, which appeared a dull, red ball in the sky. This smoke extended as far east as the Atlantic and south to Georgia. The cause was soon apparent; forest fires were raging in the lands about the lakes.

"By these fires in Lower Michigan property to the extent of thousands of dollars was destroyed; in the Upper Peninsula the burned area is reported at over one thousand square miles.

"But these devastations were insignificant compared with those in Wisconsin and Minnesota, in each of which states the losses amount to many millions of dollars. In Wisconsin the areas burned over ranged from fifty to one hundred and forty miles in extent. Individual lumbermen lost in standing pine from ten thousand to five hundred thousand dollars. All this was accompanied with the destruction of entire villages and crops as well as great loss of human life. A witness reports, 'the bodies which dot the heated and black expanse give the scene the appearance of a battlefield.'

"From Minnesota the news is even more appalling. Between Pine City and Carlton, a distance of one hundred and thirty miles, whole towns were swept out of existence. In one alone, Hinckley, at least two hundred people perished. Nineteen villages are wholly or partially destroyed, and many million feet of lumber. It is fairly computed that in this state alone five thousand square miles in area have been thus devastated. Minnesota contains about seventy thousand square miles; supposing two thirds of this area to be timbered land, one may count on the fingers of his two hands how many years of such devastation will deprive this state of every vestige of its timber.

"Terrible as has been the destruction from forest fires in 1894, the phenomena to which it has borne witness have been by no means unprecedented in our history during the last half century. I will recall those of a single year only.

"The present generation cannot have forgotten the year 1871, made memorable by the great fire in Chicago, preceded by forest fires in Wisconsin and Minnesota, and followed by similiar fires in Michigan. From July to November, a period of five months, the rainfall in the latter state did not exceed six inches, and the entire precipitation of the year was only two thirds of the normal amount. Early in October disastrous fires overspread portions of Wisconsin and Minnesota, burning over three thousand miles of territory. On the 8th of October occurred the great fire which consumed a large part of Chicago. On the same night the cities of Holland and Manistee were laid in ashes, and during the weeks succeeding came news of devastating fires in other parts of the state. county of Huron was almost entirely swept over, and a large part of Sanilac county. Nearly all the villages on the Lake Huron coast were destroyed and at least five thousand inhabitants left houseless. Houses, fences, crops, timber, all were burned; and many people perished, being unable to escape the rapid march of the flames and smoke. Not less than two thousand square miles of country, wholly or partially timbered, were completely burned over in Michigan during this disastrous year. The Lower Peninsula contains forty-four thousand square miles. If we estimate about one half, or twenty thousand square miles as timbered, it would require but ten such fires as that of 1871 to sweep the state clean.

\* \* \* \* \* \* \*

"The extent and magnificence of the forest growth of the United States at the beginning of our existence as a nation surpassed that of any land of equal extent on the globe. In the number of species and the size of its trees, both deciduous and evergreen, it exceeded by five times that of Europe. Such a forest spread almost unbroken from the Atlantic to the Mississippi. An equally dense forest, mostly conifers, and many of a size before unknown, occupied the Pacific slope; while between stretched an almost treeless region comprising nearly half the territory of the United States. What a treasury of wealth belonged to the new nation in its woodlands if properly husbanded! But to its first possessors these were an incumbrance, to be got rid of as speedily as possible, in order that place might be made for another source of national wealth—agriculture.

"Since that early period how great has been the change! The forest area, which seemed to its first possessors so vast, and such an obstacle to civilized progress, has in a single century almost disappeared.

"Computations have been made, from time to time, by competent persons, including our efficient forestry chief, Prof. Fernow, of the number of cubic feet of wood of all kinds annually used by our people for all purposes. Into these I do not propose to enter. It must suffice to say that the total annual consumption has been variously estimated at from four to eight million acres of woodland. Forest fires are responsible for ten million acres more, or nearly double all other causes combined.

"The United States east of the Mississippi contains about five hundred million acres. Assuming one half to be timbered land, and that ten million acres cover the actual annual consumption and destruction, our woodlands will practically last only another quarter of a century.

\* \* \* \* \* \* \*

- "The following propositions seem to be well established.
- I. That the temperature is hotter in summer and colder in winter than when the country was covered with forests. This is a natural result of exposure of the soil to more active radiation and consequent frost.
- 2. The winds have a more uninterrupted sweep, and so the country is both dried up and refrigerated.
- 3. The rainfall is less in amount or its advantages are to a great degree lost. Forests retain the moisture that falls and do not allow it to go to waste.
- 4. The humus in the soil, and the soil itself on the hills and slopes, are washed away by the rains, and carried to the lower lands, and to the rivers, a large part being lost altogether."

Fortunately, in our own state we have awakened to the folly of forest destruction, and are trying to avoid its consequences. But as yet, our eyes are but half opened, and we are still pursuing it, to the injury of our climate, the diminution of our water power, the waste of our soil, and the impairment of our scenery.

One becomes attached to the woods which he often visits and cares for. There is companionship in trees, when he gets to know them. They have interesting individualities and varying characteristics. The stately pine, lifting himself above his fellows, seems to assert supremacy over all about him; the oak stands ready for struggle and brave endurance; the scraggy hemlock boasts of no beauty and is of coarser fibre. Were we to join these to companions of more delicate traits, as man is joined in holy wedlock to woman, we might mate the pine with the clean-leaved maple; the oak with the wide spreading beech; the hemlock with the prim and delicate larch.

If one seeks his best thoughts, he will be surest to find them in his woods. A subtle spirit of good, as from on high, settles

into his heart of hearts, as he sits in silence and listens to the gentle breathing of the winds through their lofty arches. A still, small voice, inaudible in the noisy rush of business, is heard with distinctness there. As said Mr. Bryant more than fifty years ago:—

"The groves were God's first temples. Ere man learned To hew the shaft, and lay the architrave, And spread the roof above them,—ere he framed The lofty vault, to gather and roll back The sound of anthems; in the darkling wood, Amidst the cool and silence, he knelt down And offered to the Mightiest, solemn thanks And supplication."

#### UNDEVELOPED RESOURCES.

Such are among the ordinary resources of the First Minister's Farm. It contains, however, certain others of a more speculative character, and undeveloped as yet, of which no mention has hitherto been made.

1. It has within its bounds the whole or parts of three fish ponds of an aggregate area of some twenty acres, upon which important fisheries might be established by men of enterprise, as they were two centuries and a half ago at Strawberry Bank, by Sir Ferdinando Gorges and Captain John Mason.

Under the friendly encouragement of our fish commissioners, choicest varieties of aquatic food might be successfully raised for the ubiquitous small boy and the confident sportsman, fresh from the city on his summer vacation, whose large outlay for tackle is generally out of all proportion to the value of his catches.

2. It is also possible that the fur trade might be revived within its bounds, and flourish at the capital city of New Hampshire, as it formerly did when Concord was the headquarters of the ancient Penacooks. It is true that the fox and the bear, the beaver and the mink, have departed long ago, but their old companions, the wood-chucks and the skunks and the muskrats still remain, to burrow in the fields and ditches of the present proprietor and sorely tempt him at times to use stronger language than is decorous or pious.

The latter particularly abound, and build their houses on the edge of Horse Shoe pond, where the land and water meet.<sup>1</sup> These are of graceful outlines and modelled after the dwellings of their unctuous cousins, the Esquimaux, who live to the north of us and owe allegiance to Queen Victoria. I must modestly leave to your better judgment than mine, the value of this great peltry interest, if fully developed.

3. But still another resource, rare and as yet undeveloped, is the farm's important pearl fishery. From Cleopatra's time and long before, the pearl has been esteemed one of the fairest adornments of our fairest sex. While oftenest brought by breathless divers from the black depths of oriental seas, it is sometimes found in shallow, New England brooks; concealed within the shells of the dark bivalves, known to science as the "Unioidæ," but to an ordinary farmer, like your speaker, as the common, black, fresh water clams.

While it was known to the present proprietor that pearls of considerable value had been found in New Hampshire streams, the fact had awakened but slight interest in his plodding mind, until he was aroused from his indifference by the captivating suggestion that a proper development of this neglected bonanza, through the aid of enterprising "promoters" and the facilities of modern financiering, might exalt his farm to fame and its owner to fortune.

For reasons which your own good sense will supply, these three important resources are little likely to find development under the farm's present ownership.

The small boy must not be deprived of the privilege of catching, now and then, his string of pouts and perch, which he has asserted and constantly maintained for more than one hundred and fifty years.

Neither can the mighty hunter, descendant of Nimrod, booted and armed, be kept from striding along the margin of the meadow, in search of snipes and ducks; while his empty game bag affords disagreeable evidence that his realizations have not equalled his expectations.

And, too, international courtesy requires that the Italian gen-

<sup>&</sup>lt;sup>1</sup> Nine such houses may now (November, 1895) be counted on the north shore of this pond, either finished or partly so.

tlemen, who have nobly expatriated themselves for the sake of digging our sewer ditches, should be allowed to add a few black bivalves to the luxuries of their native cuisine. The present proprietor prefers rather to adopt the legend once displayed over the open door-way of the late Mr. Hart's inviting saloon, "Live and let live!"

#### CONCLUSIONS FROM AN EXPERIENCE OF FORTY YEARS.

An experience of forty years and more has convinced the present owner of the First Minister's Farm that success in farming is attainable only on certain conditions, among which are these:

- 1. The farmer's heart must be in his business. He will fail to do his best if it is not.
- 2. He must possess a fair amount of broad common sense. This comes not from the schools, but is the gift of God.
- 3. He must get the most he can from every resource of his farm: from his stock, from his fields and low meadows; from his pastures and his woods.
- 4. He must make free use of courage, enterprise, energy and industry. Without these he cannot successfully meet the sharp competition he will encounter on every hand.
- 5. He must remember that brute power is cheaper than human power, and overcome the high price of labor by the use of animals and machinery, whenever and wherever he profitably can. The time may not be far away when steam and electricity will come to his aid. The ensilage used at the N. H. Asylum for the Insane was all cut by electric power the present (1895) season.
- 6. He must so manage as to have appropriate employment twelve months in each year. If he does little or nothing in winter, when everyone engaged in other occupations is at work, he will not get rich by farming.
- 7. He must possess a fair knowledge of the principles of agricultural science. Without this he will make costly mistakes.
- 8. He must understand the practical application of these principles in all their details. If he does not, it will be as vain for him to anticipate success as to expect good digestion and peace of mind when his wife does n't know how to cook.

While your speaker yields to no one in high appreciation of the value of agricultural science, he has been led by personal experience and observation to emphasize the importance of knowing how to use it. Theory and practice must go hand in hand. Why, my dear brother farmers, we need art as well as science in our business.

I have sometimes thought that our agricultural institutions gave too much attention to the science and too little to the practice of farming. Particularly has this idea been impressed upon my mind when I have seen a great farm, which sometimes sold hay, obliged to buy it, on account of the lack of a practical remembrance of the productive capacities of its soils, on the part of its scientific manager. And still deeper has sunk the impress, when I have learned that the ensilage on an important farm had been partially spoiled because its scientific overseer had refused to have it cut before a magical 25th day of September, notwithstanding it was, long before that day, drying up to its injury.

Our chairman, Mr. Humphrey, is preëminently a practical man, and I have imagined that if some confident, young graduate, fresh from a great agricultural college outside of New Hampshire, with his head crammed with ill-digested, rural science, but empty of all skill in the practical use of it, were to apply to him for the position of manager of his farm, the interview might be, possibly, something like this:

Graduate.—" Mr. Humphrey, inasmuch as you have become too old to work, it has occurred to me that you needed a foreman on your farm, and that I am the man you need." (He has rubbed our chairman's fur the wrong way.)

Mr. H.—" It has occurred to you? A most wonderful occurrence! It is true that I no longer boast of extreme youth; for I am fifty years old and a trifle over; as is also Mr. Gladstone, and Prince Bismarck, and Senator Morrill of Vermont, but none of us think that we are past doing something. However, I do want a foreman, and I'll hire you if there is a fair probability that your 'occurrence' will materialize to my advantage. What are your qualifications?"

Graduate.—" There is my diploma, read it for yourself!

You will see that I am a Bachelor of Science." (Thereupon he hands him a sheet of parchment, half as large as a bed blanket, adorned with a great seal, a broad, blue ribbon and official signatures.)

Mr. H.—"A Bachelor of Science! What is that? Science is a large word. Bachelor of Science! Does it mean that you are an unmarried man, and know everything? Do you know how to drive a four ox-team?"

Graduate.—"You would hardly expect, Mr. Humphrey, a learned college professor to teach the driving of oxen, would you?"

Mr. H.—" I would if his students were not good teamsters; and also how to hitch to a plow, or a log, or a stone, or anything else, so as to accomplish a given amount of work with the least expenditure of power. Power on a farm is expensive. But, if you know no teaming, you, doubtless, know all about botany for that is a science. Can you tell me whether a hogweed is an annual or a perennial plant?"

Graduate.—"We studied botany at our college in the winter, and I don't quite remember. My recollection is, that it is a perennial plant."

Mr. H.—"Then this weed must have changed its nature. I have known it and fought it in my garden and fields for half a century and it has always heretofore been an annual one. Science is progressing, however, and I have doubtless got behindhand. But never mind the hog weed! I want to drain that narrow belt of ground, which you see sloping to the pond on one side, and kept wet on the other by springs discharging upon it, at the base of the hill which rises above it. Can you tell me how to do it?"

Graduate.—"Oh, yes, Mr. Humphrey, just have an hydraulic engineer make you a drainage plan, and put in your drains as he directs."

Mr. H.-" Can you make me such a plan?"

Graduate.—"Well, I have never done such work. A former president of your New Hampshire College of Agriculture said, some years ago, at a meeting of farmers, that drainage could be learned in five minutes, and for that reason I did not study drainage."

Mr. H.—" If the president was right, you can easily post yourself on that branch of farming. If you will pardon my curiosity, I will ask what did your great diploma cost you?"

Graduate.—"I do n't quite like to say. I fear from your questions that you think it covers only about half of what it ought to, and that, like a fifty cent silver dollar, it is worth but half of what it claims to be. However, I will answer your question, and say that my degree of Bachelor of Science cost me three years' study and about one thousand dollars."

Mr. H.—"Go and study two or three years more with some intelligent, practical farmer who understands his business. If, at the end of that time, you see fit to return to me, with a certificate from him, in two lines, that you have come to know less than you thought you did, and have become a middling good farmer, I'll hire you."

If the wings of the young "diplomatist" were plucked a little by this interview, it was far less his fault than that of his teachers. Our chairman doubtless recognized this fact, and would have pardoned him had he ventured to say of them, what the great German statesman has recently said of the landless rulers of his country, "Each minister [professor] ought to be put on a farm and forced to subsist on the products thereof. Then would farming be better cared for."

In the general study of the great laws which govern industrial processes, the present trend of thought is toward practicality. Many of the principles of electricity were well known an hundred years ago, but that knowledge benefited mankind but little. Now that this most subtle and powerful of all known agencies has been tamed and harnessed to the rail car and the mill wheel, its value has become incalculable. And, when all the hidden forces of nature applicable to agriculture shall have been made available, the results of our labors will have been enlarged and our welfare correspondingly advanced.

John Lord has somewhere said that, during the reign of the Cæsars and their successors, great elevating and depressing forces were constantly active, the latter of which eventually prevailed and rendered the ruin of the empire as complete as it

<sup>&</sup>lt;sup>1</sup> Boston Daily Advertiser, June 10, 1895, p. 1.

was inglorious. It is equally true, that strong uplifting and depressing influences are now operating upon the welfare of our agriculture.

Among the latter, may be enumerated a distaste for farm life, due largely to bad farming; the farmer's imperfect appreciation of the importance of his calling and of his position as an owner of land; as well as an exaggerated idea of the desirableness of large wealth and the superior advantages of city life.

Among the former, we may recognize as uplifting influences, our agricultural journals and schools, our agricultural boards, and the great organization of the Patrons of Husbandry; all accompanied by the activity of men of mechanical talent, by whose inventions the results of labor are enhanced and its cost diminished.

The contest between these two forces is everywhere active, and bids fair to continue to be. Malthus and Buckle may tell us that states, like men, are born and grow to maturity, only to decline to decrepitude and death; and, in proof of this, point to Babylon and Assyria, to Egypt, Persia, Greece, and Rome. And in harmony with them Lord Byron may have said,

"When falls the Colosseum, Rome falls, And when falls Rome, the world."

The Colosseum is now a ruin, and the empire perished fifteen centuries ago; but the world still endures. So does Agriculture, man's primal calling and our own chosen pursuit. This great industrial interest, which underlies and supports all others, will last as long as God's great experiment of human regeneration continues. For while "man cannot live by bread alone," he cannot live without it. When that fails, man fails and the world will be divested of human occupancy. Such is the character, and importance of the calling to which our energies have been consecrated.

Let us therefore appreciate the importance of our calling and love our acres, never forgetting the remark to her son by that shrewd, old Virginia matron, the mother of John Randolph of Roanoke:

"Never part with your land. Keep your land and your land will keep you."

### APPENDIX A.

THE STATE AND CONDITION OF THE SETTLEMENT OF PENNYCOOK IN OCTOBER, 1731.

NATHANIEL ABBOTT. He had a house built and his family there.

JACOB ABBOTT. He had a house built and inhabited.

JOHN AUSTIN. He had a house built and inhabited.

SAMUEL AYER. He had a house framed, and twelve acres of land fenced, mowed, and ploughed.

OBADIAH AYER. He had a house built and inhabited.

JOHN AYER. He had a house inhabited.

JOHN BAYLEY. He had a house erected but not finished.

NATHANIEL BARKER. He had a house built, and the lot improved by James Varnum, an inhabitant.

ZEBEDIAH BARKER. He had a house and barn well finished and inhabited.

WILLIAM BARKER. He had a house well finished and inhabited, and a good barn.

Joshua Bayley. He had a house built and inhabited.

THOMAS BLANCHARD. He had a house built and inhabited.

Moses Boardman. He had a house built, but not quite finished, but tenantable—six-acre lot fenced in and under improvement.

NATHAN BLODGETT. He had a house inhabited.

CHRISTOPHER CARLTON. He had a house built and inhabited.

Benjamin Carlton. He had a house built, and the orders of the Court complied with by Jeremiah Stickney, an inhabitant.

NEHEMIAH CARLTON. He had a house erected, and the order complied with, by Abner Hoit, an inhabitant.

JOHN CHANDLER. A house built and inhabited—the order fully complied with.

NATHANIEL CLEMENT. He had no house and no inhabitant—three acres ploughed.

JOHN COGGIN. He had a house erected, but not finished—twelve acres of land fenced and improved.

EDWARD CLARK. He had a house built, not finished, a man inhabiting there—twelve acres within fence, mowed and ploughed.

ENOCH COFFIN. He had a house built, and the order complied with by Jonathan Danforth.

THOMAS COLMAN. He had a house built and inhabited.

RICHARD COOLIDGE. He had no house, but land improved and order otherwise complied with by Ens. John Chandler.

Joseph Davis. He had a house built and well finished.

EPHRAIM DAVIS. He had a house built, and the order was complied with by his own son.

SAMUEL Davis. [Blank.]

Moses Day. He had a house built and inhabited.

DAVID DODGE. He had a house built—not finished.

JACOB EAMES. He had a good dwelling-house—six acre lot, fenced in and broke up.

EBENEZER EASTMAN. He had six sons on the spot—six men in his family. He paid the charge of building a cornmill; and he has broke up, cleared and mowed upward of eighty acres of land, and had very considerable buildings, out houses, barns, etc., there.

STEPHEN EMERSON. He had a house built, and the order complied with—no inhabitant.

EPHRAIM FARNUM. He was an inhabitant and had a house built.

NATHAN FISK. He had a house built and inhabited, and the order complied with by Z. Chandler.

ABRAHAM FOSTER. He had a house built and inhabited.

JOHN FOSTER. He had a house built, and the order complied with by his son.

BENJAMIN GAGE. He had a house built and inhabited.

JOHN GRANGER. He had a house built and finished—order complied with by John Russ, inhabitant.

SAMUEL GRAINGER. He had a house built—order complied with by George Abbott.

WILLIAM GUTTERSON. He had a house built, and the order complied with by John Merrill.

Joseph Hale. He had a frame standing on the house lot.

JOHN HALL. He had a house built and inhabited.

Moses Hazzen. He had a house built and inhabited.

RICHARD HAZZEN, Jun. He had a house built and the order complied with by Deacon Osgood.

NEHEMIAH HEATH. [Blank.]

EPHRAIM HILDRETH. He had a frame, not raised, but ready, and land ploughed.

JONATHAN HUBBARD for DANIEL DAVIS. He had a house built and inhabited.

JOHN JAQUES. He had a house built and inhabited.

TIMOTHY JOHNSON. He had a house built and inhabited.

NATHANIEL JONES. He had a house built, and order complied with by his son.

DAVID KIMBALL. He had a house built—an inhabitant.

ROBERT KIMBALL. He had a house—the order complied with—his son an inhabitant.

SAMUEL KIMBALL. He had a house built—not finished—the order complied with by his son.

ISAAC LEARNED. He had a house—man dead.

EBENEZER LOVEJOY. He had a house, but uninhabited.

NATHANIEL LOVEJOY. He had a house erected—not finished.

JOHN MATTIS. He had a house and barn, and inhabited.

JOHN MERRILL. He had a house built—an inhabitant.

Andrew Mitchell. He had a house erected—not finished—twelve acres fenced and ploughed.

BENJAMIN NICHOLS. He had a house and inhabited.

JOHN OSGOOD. He had a house built and inhabited.

Stephen Osgood. He had a house—ten acres fenced and mowed—cleared—nothing ploughed.

THOMAS PAGE. [Blank.]

Joseph Page. He had a house built and inhabited.

NATHANIEL PAGE. He had a house built, finished and inhabited.

JOSEPH PARKER. He had a house but not finished—orders otherwise complied with by Ezekiel Walker, an inhabitant.

NATHAN PARKER. He had a house built and inhabited.

BENJAMIN PARKER. He had a house partly covered—ten acres fenced and improved by ploughing and mowing.

JAMES PARKER. He had no house—the land ploughed, mowed and fenced by Lt. Farrington, an inhabitant.

JOHN PEABODY. He had a house up—negro man, inhabitant—orders otherwise complied with.

NATHANIEL PEASLEE. He had a house—order complied with by John Merrill.

ROBERT PEASLEE. He had a house and inhabited.

JOHN PECKER. He had a house built and inhabited.

REV. SAMUEL PHILLIPS. He had a house up—not finished, order for improvement complied with by William Peters.

JONATHAN PULSIPHER. He had a house built and inhabited.

THOMAS PERLEY for Nathaniel Cogswell. He had a house built and was an inhabitant.

SAMUEL REYNOLDS. He had a house erected, but not finished, and land fenced and improved—no inhabitant.

HENRY ROLFE. He had a house built and inhabited.

JOHN SANDERS. He had a house built and inhabited.

NATHANIEL SANDERS. He had a house built and inhabited.

John Sanders, Jr. He had a house built—land ploughed, moved and fenced.

JONATHAN SHIPLEY. [Blank.]

JAMES SIMONDS. He had a house built and inhabited.

NATHAN SIMONDS. [Blank.]

EBENEZER STEVENS. He had a house and barn built, finished and inhabited.

ZERUBBABEL Snow. He had a house up, inhabited by Isaac Walker.

BENJAMIN STEVENS, Esq. He had a house and barn—improved by Ebenezer Stevens.

BEZALEEL TOPPAN. He had a house built and inhabited.

Samuel Toppan. He had a house inhabited—order complied with by —— Danforth.

RICHARD URAN. He was an inhabitant, and had land mowed, ploughed and fenced.

EBENEZER VIRGIN. He had a house and inhabited it.

ISAAC WALKER. He had a house up-not finished-was an

inhabitant, with his family—twelve acres fenced, mowed and ploughed.

WILLIAM WHITE. No house frame ready—three acres ploughed—that's all.

NICHOLAS WHITE. Frame raised—possessed by Call, an inhabitant there.

THOMAS WILCOMB. He had a house built, and had a man there.

WILLIAM WHITTIER. No house nor inhabitant.

EDWARD WINN. He had a house up not finished.

JOHN WRIGHT. He had a house almost finished—an inhabitant.

AMMI RUHAMAH WISE. He had a house built and inhabited. DAVID WOOD. He had a house and a man on the spotten acres fenced, moved and ploughed.

Total 100.

The above is the account of the present state and circumstances of the Plantation of Penny Cook, taken there by as careful a view as we could, and the best information of the principal settlers and inhabitants.

John Wainwright. Jno. Sanders.

October 20, 1731.

# APPENDIX B.

HON. TIMOTHY WALKER.

Hon. Timothy Walker was the only son of Rev. Timothy Walker, the first minister of Concord, N. H., where he was born June 26, 1727, and died May 5th, 1822. He bore in succession the titles of Reverend, Colonel, and Judge Timothy Walker, but longest the latter; by which he was designated for some forty-five years. He was graduated at Harvard College in 1756, studied theology and preached, more or less, for

¹ Up to the Revolution, or thereabouts, the names of the students of Harvard College were entered upon its catalogues according to the presumed social positions of the families to which they severally belonged and not alphabetically or according to scholarship. Judge Walker's name stands as the eighth on the roll of his class of twenty-five; while that of his father was the twenty-eighth in a class of forty-five.

ten years, but was never settled. A little before the commencement of the Revolutionary War, he relinquished the sacred duties of the pulpit for those of civil life.

On the fifth day of September, 1775, he was commissioned by the Congress of the Colony of New Hampshire, Colonel of the Third Regiment of Minute men of this Colony. He was a Paymaster of the New Hampshire forces, stationed at Winter Hill in the early part of the Revolutionary War, and served a campaign under General Sullivan. Later, he was a member of the Committee of Safety. He was also a member of the Fourth and Fifth Provincial Congresses, the latter of which assumed civil government by the adoption of a State Constitution, January 5th, 1776. He was also a member of the committee which drafted and reported to the House of Representatives the memorable Declaration of Independence which was passed by this resolute body on the fifteenth day of June, 1776.

<sup>1</sup> His commission, which has been preserved, has upon it the old Colonial seal, bearing upon its face the device of a bundle of arrows, flanked on the left by a fish and on the right by a pine tree; together with the legend, "Vis Unita Fortior." It is signed by Matthew Thornton, President, and countersigned by E. Thompson, Secretary.

<sup>2</sup>This Declaration was as follows:

"Whereas it now appears an undoubted Fact, That Notwithstanding all the dutiful Peticions and Decent Remonstrances from the American Colonies, and the utmost Exertions of their best Friends in England on their Behalf, the British Ministry, arbitrary and vindictive are yet Determined to Reduce by Fire and Sword our Bleeding Country, to their absolute obedience; and for this Purpose in addition to their own forces, have Engaged great numbers of Foreign Mercenaries, who may now be on their passage here, accompanied by a Formidable Fleet to Ravage and Plunder the Sea Coast; From all which we may reasonably Expect the most Dismal Scenes of Distress the ensuing year, unless we Exert ourselves by every means and Precaution possible; And Whereas as We of this Colony of New Hampshire have the Example of several of the most Respectable of our Sister Colonies before us for Entering upon that most Important Step of a Disunion from Great Britain, and Declaring ourselves Free and Independent of the Crown thereof,-being propelled thereto by the most violent and injurious Treatment; and it appearing absolutely Necessary in this most Critical Juncture of our Public Affairs, that the Honble the Continental Congress, who have this Important object under Immediate Consideration, should be also Informed of our Resolutions thereon without loss of time: WE Do, therefore Declare that it is the opinion of this Assembly that our Delegates at the Continental Congress should be Instructed, and they are hereby Instructed to join with the other Colonies in Declaring THE THIRTEEN UNITED COLONIES, A FREE AND INDEPENDENT STATE: Solemnly Pledging our Faith and Honour, That we will on our parts Support the measure with our lives and Fortunes; -and that in consequence thereof, They, the Continental Congress, on whose Wisdom, Fidelity & Integrity we rely, may enter into and form such Alliances as they may judge most conducive to the

The adoption of the State Constitution involved the establishment of a State government with its legislative, executive, and judicial departments. To the latter he was called, as a Justice of the Court of Common Pleas for Rockingham County. This position he held for more than twenty years.

He lived nearly all his life upon the Farm of the First Minister and for many years superintended its operations. But so absorbed by other duties were his time and thoughts that he attempted but little in the line of husbandry beyond the ordinary routine of the farm work of his period. In fact, the time for important improvements in agriculture has not yet come.

Early in the present century, feeling somewhat the weight of years and desirous of establishing him in a settled business, he transferred to his youngest son, Capt. Joseph Walker, the farm which he had occupied for a generation.

He died at his paternal homestead on the fifth day of May, 1822, at the age of eighty-five years.

## APPENDIX C.

## CAPTAIN JOSEPH WALKER.

Captain Joseph Walker, its third proprietor, was born on the Farm of the First Minister on the 12th day of January, 1782, and reared under the traditions and usages of the period following the American Revolution. He received a fair English education in the common school of his native town and at the academy in Fryeburg, Maine, in anticipation of an agricultural career.

A few years after the attainment of his majority, his father transferred to him the ownership of the farm and he thereupon assumed its management. He repaired its buildings and increased their number. He added to its acreage and, about 1820, lessened greatly the distance to its fields by the construction of

Present Safety and Future advantage of These American Colonies: Provided, the Regulation of our Internal Police be under the direction of our own Assembly.

Entered according to the Original,

a bridge across Horse Shoe pond. He also improved its sheep husbandry by the infusion of foreign blood into his flock, and facilitated some of the farm labors by the introduction of the corn sheller, the horse rake, and the horse pitch fork. The latter, consisting of two very heavy iron tines held in place by a wooden cross bar, is still preserved.

Captain Walker held various town offices from time to time and shared with his neighbors the official honors which his town had at its disposal. But he had no desire for political preferment. He was a clear sighted, level headed man who possessed the courage of his convictions and acted in accordance therewith.

He was engaged more or less, at times, in business other than that of his farm, being a member of several financial corporations and manager of an extensive land holding on the Androscoggin river, at Rumford, Maine, a township which had been granted by the state of Massachusetts to the proprietors of Concord, in consideration of expenses incurred by them in quieting the title to their township, against the claims of the so-called proprietors of Bow, after the determination of the boundary line between New Hampshire and Massachusetts.

He possessed a military taste and was for many years an officer of a company of cavalry attached to the Eleventh Regiment of the New Hampshire militia; having been appointed its second lieutenant December 8, 1804, its first lieutenant September 23, 1808, and its captain, September 22, 1809. His successive commissions are signed, the first by Gov. John Taylor Gilman, the second by Gov. John Langdon, and the third by Gov. Jeremiah Smith.

Endowed with bonhomie in large measure, he was ever in close touch with the members of his company. These lived in different sections of Concord and several of the neighboring

<sup>&</sup>lt;sup>1</sup>Mr. Rowland E. Robinson says in his history of Vermont that, "Early in the century, Vermont flocks were greatly improved by the introduction of the Spanish merinos. During 1809 and 1810 William Jarvis, our consul at Lisbon, obtained about 4,000 merinos from the confiscated flocks of the Spanish nobles, and imported them to this country. . . . From the Jarvis importation, and from a small flock of the Infantado family imported about the same time by Colonel Humphreys, our minister to Spain, the most valued merinos are descended." More or less of our New Hampshire flocks were greatly improved by these importations.

towns. Company meetings were warned by verbal notices given to members present at the Concord meeting-house on some Sunday previous to the day appointed therefor, and by them forwarded to those absent.

Some of these, living at long distances from the place of parade, which was generally Concord, made their appearance the evening before the day of training, and found at the home of their captain a soldier's welcome to themselves and horses. For the latter sleeping accommodations were always abundant. For their riders, these did not always suffice. But if the number of beds in the house fell short, the late comers took to the floors and, wrapped in their blankets, "endured hardness as good soldiers."

Before their marriage, the Captain's wife had been a school teacher and may have increased his interest in the welfare of the rising generation. However that may be, soon after he had relinquished the celibacy which had too long enthralled him, he was directed by his district to procure the erection of a new school house, to supersede the low, wooden structure in which his wife had painfully labored to enlighten the children committed to her tutelage.

In due time, a two-story, brick building, surmounted by a tin-covered belfry of graceful outlines and fully supplied with the best furniture then in use, challenged the admiration of all lovers of good schools and school-houses. It was by far the best building of its kind in the county and few, if any, surpassed elsewhere in the state.

Some members of the district, who thought more of their taxes than of their children's welfare, complained of its costliness and objected to the payment of the outstanding bills incurred in its construction. During this ferment, the house was opened for use and the late Judge George W. Nesmith, then a student of Dartmouth college, was employed to teach the winter school.

One day, as he has said, he was met upon the street by Captain Walker who asked him for the loan of the school-house key. He at once handed it to him, supposing that entrance was wanted for the completion of something which had been left unfinished and that it would be seasonably returned to him.

But, when the succeeding evening had passed and much of the following morning with no tidings of the key, he sought the Captain, whom he readily found, and asked for it. He was suavely told, in reply, that a short vacation would harm neither him nor his scholars, and that its length would be governed by the obstinacy of the parties who withheld the money raised for the payment of the few outstanding bills incurred in the construction of the school-house. The money was soon advanced and the interruption of the school exercises was but a brief one.

Tradition has preserved various anecdotes relating to Captain Walker which attest the kindly humor which he often displayed. One of them was to this effect:

At a parade in Loudon, his company of cavalry had been drawn up to receive the hospitality of its commanding officer. The bottle was started at one end of the line and each man helped himself to its contents as it passed along. In due time it reached the other end where the chaplain was stationed. He manfully followed the example of his predecessors, and was about to start the beverage on its return course when the quick eye of the captain detected his intent, and a peremptory order, prompt and clear, was issued, that his reverence must turn a double corner and take a second drink before sending the bottle back, as his comrades were about to do. The chaplain was a strict disciplinarian and obeyed promptly. Total abstinence was not then a martial virtue.

Captain Walker was the only one of the farm's four proprietors who has devoted to it the main energies of his life. He loved his paternal acres. He loved his flock and his herd. He was fond of a good yoke of oxen and delighted in a good horse. He also rejoiced in a straight, even, and well-turned furrow. He raised good crops of hay and oats, of corn, rye, and potatoes.

But the early loss of his wife cast a shadow over his last years from which he never fully emerged. He died March 3, 1833, at the age of fifty-one years.

## APPENDIX D.

AGRICULTURAL PROGRESS FROM 1782 TO 1833.

During the long period extending from the death of the first, in 1782, to that of the third proprietor of the First Minister's Farm, in 1833, New Hampshire farming made few marked advances. The time was largely one of recovery from the exhaustion of war and financial embarrassments. The farmers lived isolated on their individual holdings. They rarely left their homes except as they went occasionally to market or to mill and on Sundays to meeting.

But while this period of about fifty years was not fruitful in very obvious advances in the state's farming, it was, nevertheless, important as the forerunner of a succeeding one of wondrous progress; just as the ministry of John the Baptist was of the grander one of the Messiah. In other words, it was the agricultural daybreak of the full-orbed agricultural day.

On the 16th of December, 1812, the governor of the state of New Hampshire approved an act of the Legislature making Jedediah K. Smith of Amherst, Nathaniel Upham of Rochester, Samuel Sparhawk of Concord, Ithamar Chase of Cornish, Thomas D. Merrill of Epsom, Timothy Walker of Concord, Joshua Darling of Henniker, Samuel Quarles of Ossipee, John F. Parrot of Portsmouth, Edward Cutts of Portsmouth, John Bradley of Concord, Joseph Sawyer of Piermont, William Badger of Gilmanton, John Hodgdon, Levi Hutchins of Concord, Nathaniel Gilman of Exeter, Richard Odell of Conway, John Dame of Portsmouth, and Peter Stow, their associates and successors a body politic and corporate, "To promote and encourage agriculture, economy and husbandry and useful domestic manufactures the objects of their association [and] and shall have right and power to ordain and grant premiums and medals or other gratuities as rewards of merit, exertion, discovery or improvement on the several objects aforesaid." 1

How far this society was active in promoting the objects for which it was instituted I am unable to say. It was soon fol-

lowed by the establishment of kindred organizations in several counties: In Rockingham in 1814, in Cheshire in 1816, in Strafford and Grafton in 1818, in Coös in 1819, and in Merrimack in 1824. All of these were instrumental for many years in stimulating agricultural improvement in their several localities by exhibitions of choice farm products and domestic manufactures and by the payment of premiums therefor.

In 1820 the way seemed open to a further advance, and the Legislature created a State Board of Agriculture, to consist of the presidents of the several county societies and of one delegate from each who "Shall receive and examine all such reports and returns as have been or shall be made by the county societies within the state; and select for publication such of them and such other essays relative to improvements in agriculture as they may think will conduce to the advancement of agriculture.

\* \* \* \* \* \* \*

"And shall annually publish a pamphlet at the expense of the state, to be distributed by means of said agricultural societies to the people of this state."

At a meeting of the Board, holden on the nineteenth day of June, 1821, Hon. William Badger of Gilmanton was chosen President; Hon. Matthew Harvey of Hopkinton, Secretary; Hon. Samuel Grant of Walpole, Treasurer; and Hon. Amos Kent of Chester, Rev. Humphrey Moore of Milford, and Hon. Samuel Grant, a Committee of Publication.

This Board had but a short career. In 1822 it issued a very creditable report of one hundred and thirty-five octavo pages, designated "The New Hampshire Agricultural Repository, No. 1." It contains eight well-written papers, all from the pens of two members of the Board. This first Report was its last and the Board ceased to exist a year or two after its issue. It was, however, the precursor by half a century of the Board, which, instituted at a more auspicious time, has achieved a high and lasting success.

# APPENDIX E.

THE CONDITION OF THE FIRST MINISTER'S FARM AND BUILDINGS IN 1853.

When the fourth proprietor of the First Minister's Farm assumed its management its condition was not one to be proud of. For about twenty years it had been occupied by tenants. The arable section had yielded successive croppings for one hundred and twenty years. It was annually producing some fifty to sixty tons of English grass. This varied in quality, all the way from the best to the poorest, which could be made to pass under that designation. It also gave medium crops of grain and vegetables on a yearly area of seven or eight acres. In short, for that of a rented farm, the tillage portion was in fair condition, the leases having provided for the return to the farm of a specified amount of manure for each ton of hay sold therefrom, as well as the expenditure upon it of all produced thereon. The tenants had always been honorable men and had fulfilled the stipulations of their covenants.

There were three pastures upon the farm. The first was a small one, of seven or eight acres, for the occasional use of oxen. The second was a cow pasture of some twenty-five acres. The third was upon the upland, two miles distant from the buildings of the farm.

The first of these had been cultivated at some previous time and was in fair condition. Much of the second had never felt the pressure of the plow. It consisted of semi-circular ridges and intervening hollows. The former were dry and bore more hardhack bushes than grass. The latter were moist, and their herbage was largely mixed with brakes and polypod. The third was an upland pasture of about thirty-six acres, which had been cleared many years before and was somewhat stony but of good soil. It had never been ploughed but produced a fair amount of good feed. It was almost entirely inclosed by a good stone wall, and had been used at one period as a sheep pasture.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> When sheep husbandry was common in Concord, the owners of flocks had their individual marks for the recognition of their sheep, which were recorded

The nearly fifty acres of bog land was a part of an abandoned channel of Merrimack river, whose surface had been raised by successive deposits of aquatic vegetation and freshet silt some six feet above the average height of the river. For the want of proper drainage it was impassable by teams, and produced only bushes, sedges, and the poorest kind of meadow grass. It surrounded the main body of the tillage land by a belt, varying in width all the way from two to twenty rods, parallel with which extended much of the way an outer belt of water of varying width.

At some remote period a ditch had been cut through a section of this bog in the direction of Horse Shoe pond, but its channel had been so obstructed by freshets, aquatic plants, and bushes as to greatly impair its efficiency for drainage.

Some seven or eight acres of this bog had been mowed from time to time, but the crops had hardly paid the cost of their removal. The whole tract was underlaid by a water table, whose surface rose and fell with that of the adjacent pond. At the same time, it was the most conspicuous part of the farm and was partially occupied by a belt of bushes, which previous neglect had allowed to grow thereon; but while this sodden section had few attractions for the farmer, sportsmen and their dogs were drawn to it and knew far better all the mazes of its thickets than did its owner.

Sixty acres of the farm's wood and timber land was covered with a sparse growth of pitch pine (Pinus rigida), and formed a part of the sandy plain on the east side of the Merrimack river. Some of the trees were of primeval growth. So free of underbrush was it that a carriage might pass through it in all directions. Fires had swept over it repeatedly, but its trees had been large enough to successfully withstand their ravages. It is greatly to be regretted that this valuable inhabitant of our forests seems destined to become virtually extinct in New Hampshire, and at a day not far distant.

The remainder of the farm's forest land was covered with the common deciduous trees found in our upland woods, mixed

by the town clerk. That designating those kept upon the First Minister's Farm was "A Swallow's Tail in the off Ear and a half Penny the under side of the near Ear, entered June 9th 1770."

Concord Town Records, printed Vol., p. 530.

with pines and hemlocks. Here and there could be found old growth white pines (*Pinus strobus*) four or five feet in diameter at the ground, whose ages reached back to the Indian occupation of the country; the last survivors of a noble company from which the second and third Georges had selected masts for the English navy. It is doubtless true that not one such is now standing within the limits of ancient Penny Cook, and very few, indeed, in this state.

Through the largest tract of the farm's forest the great cyclone of 1816 had cut its way, prostrating everything before it. Its course could be plainly traced by the decaying trunks, which have ever since lain undisturbed where they had fallen,—pines, oaks, chestnuts, maples, hemlocks, etc., gradually returning to the soil the elements which they had formerly withdrawn from it.

The farm's water surface, of some twenty acres, constituted the whole or parts of three ponds, severally known as Horseshoe, Back, and Little ponds. While this territory belonged legally to the owner of the farm, its occupancy had always been maintained by a class of men and boys, who delight in the capture of shiners, flatsides, perch, pouts, with now and then a pickerel and a slippery eel. They were mostly persons of leisure, whose time was not considered very precious either by themselves or by anyone else.

The buildings on the Farm of the First Minister have always been simple and unpretentious.

The house occupied by the several proprietors is a plain, gambrel-roof structure of wood. It has been changed but little since its erection in 1734, and has sheltered six generations of the family.

In his history of the town of Concord, pp. 556-558, Dr. Bouton gives the following historical sketch of it:

#### "THE WALKER HOUSE.

"This house is [said to be] the oldest two-story dwelling house between Haverhill, Mass., and Canada. It was erected by the Rev. Mr. Walker on [or near] the house lot drawn to the first

minister in the year 1733-'34, the town having generously voted him 'fifty pounds for building a dwelling house in Pennycook.' Its dimensions were forty by twenty feet, two stories in height, with an ell adjoining on the east, of one story, both parts being covered with a gambrel roof. The chimneys were very large and of stone. One of them, which remained as originally built until 1847, was found upon its removal to be about five feet square, and constructed of flat, ledge stones, laid in clay mortar and plastered on the inside with a composition of clay and chopped straw. Only the ell part was entirely finished at first and contained but three rooms on the first floor. The front part remained in an unfinished state until 1757, when, with the assistance of Lieutenant Webster of Bradford, a joiner of high repute in those days, it was also completed. The wood-work being near to completion, it appears from a letter dated the 9th of September, 1759, addressed by Rev. Mr. Walker to his son, Timothy, then teaching school at Bradford, Mass., that a grave question arose as to the propriety 'of painting ye outside.' The decision arrived at is not now known, but, either at that time or a few years subsequent, it was painted a light yellow, which continued to be its uniform color for at least seventy years. The interior was finished in a style similar to that found in the better class of houses of that period. Most of the partitions were of wooden panel work; the front hall was dadoed with panelling, and the front stairs were in three short flights, conducting to broad landings and guarded by a moulded rail, supported upon curiously-wrought balusters. The rooms were painted various colors, the north parlor and south parlor chamber being green, the south parlor blue, the north parlor chamber and the old people's bed-room white, and the kitchen red. Thus constructed and finished it remained without alteration, with the exception of an enlargement of the ell, until 1848, when it was modified in some particulars and thoroughly repaired by the present proprietor. In 1739,1 it was appointed

<sup>&</sup>lt;sup>1</sup> Should be 1746.

The precise year when the garrison around the house of the Rev. Mr Walker was built is uncertain. On the 7th of November, 1739, the town "voted that there shall be a good and sufficient garrison built around the Rev. Mr. Timothy Walker's dwelling-house, as soon as may be conveniently, at the town's cost." It must have been sometime between 1739 and 1746.

a garrison-house, and fortified 'at the town's cost' by the erection about it of a wall of timbers lying in contact, one upon another, and held in position by tenon-ends let into grooved posts set in the ground. Eight families besides Mr. Walker's were assigned to it and occupied it more or less of the time until the close of the second French war. When, in 1782, the legislature met in Concord for the first time and held its sessions in the hall over Judge Walker's store, which was near by, the president of the state with his council occupied the north parlor of this house, while the south parlor served as a general committee room, and the room above it as the office of the treasurer of state. It was the residence of Rev. Mr. Walker until his death; and his son, the late Judge Walker, lived in it during almost the entire period of his life. It is now owned and occupied by Joseph B. Walker, Esq., a great-grandson of Rev. Mr. Walker."

The barn erected by the First Minister was a fair type of the larger New Hampshire barns of the middle of the last century. It was some eighty or ninety feet long and forty feet wide, boarded up and down with unplaned pine boards. The cart entrances were upon the north side and its driveways were across its longitudinal axis, flanked by bays for hay. In its west end was a granary, slatted on the outside wall. It was enlarged on the south side by the addition of a lean-to for cattle.

This barn stood at the corner of Main and Penacook streets until 1830, when it gave place to the more modern structure still in use. This, which is eighty feet long by forty feet wide, is entered at the ends and has a driveway twelve feet wide extending through its entire length, on each side of which are bays for the storage of hay. As originally constructed, it had a stable for cattle on the east side of the driveway, and a small stable for horses in the south-west section. Its main timbers are of sawed hard pine, and its roof boards, which extend without piecing from the ridge to the eaves, are of the same material. The other timbers, plank, and boards are of white pine. These, delivered upon the site and ready for use, cost in 1830, seven dollars per thousand.

The erection of this barn was preceded by that of two others, one of them smaller but similar in construction, and the other,

some forty feet long and thirty feet wide, designed and used for a sheep barn, which was divided into two stories, the upper being used for the storage of hay, and the lower one for the sheltering of sheep and for a cider mill. When sheep husbandry and cider making were abandoned, this barn was removed and when, ere long, an increase of crops required more storage room, another structure of better design and larger proportions was erected.

These, together with two houses not mentioned, a horse stable, corn barn, wood shed, and other small structures, constitute the present buildings upon the First Minister's Farm. If none of them are very fine, they are as good as the farm profits will support, and are adequate to all the demands made upon them. When, some years ago, the president of the old Perth Amboy railroad in New Jersey, was asked why he did not build a better station at Trenton, the capital of the state, he quietly replied that "hemlock boards yielded very good dividends to the stockholders."

## APPENDIX F.

EXTRACTS FROM A DIARY KEPT BY BENJAMIN KIMBALL AT KIMBALL'S FERRY, SO CALLED, CONCORD, N. H.

1815. March 25. Last passing the river on the ice.

May 18. First planting.

May 30. Apple Trees in full blossom.

Sept. 23. A high gale of wind, (September gales,) which destroyed buildings, fences and trees to an immense amount.

1816. June 6-12. Six days very cold weather; snow fell, ground froze, and corn killed.

Sept. 23. A hard freeze, ears of corn froze through.

July 7. A hard frost; cold for six days.

1817. April 1. Good passing on the ice with horses.

Sept. 30. The first frost.

Dec. 23. First passing the river on the ice.

1818. February. A very cold month.

March I. A heavy rain, and on the third, river over-flowed.

March 22. Good boating.

1818. December. Very cold.

1819. January and February. Very warm, with very little snow, the ground being bare the whole time, and no sledding but all business and journeys performed with wagons.

April 5. A great freshet, which carried off Federal bridge.

May 19. High water over all the interval.

August 12. The warmest day for twenty years.

1820. March 30. First boating.

May 26. Apple trees in blossom; also a storm of rain, hail and snow, the snow lying two inches deep after the storm.

Oct. 17. The highest freshet for thirty-six years.

Nov. 12. A severe snow storm; snow fell six inches deep, and good sledding for several days.

1821. Dec. 14. Last boating for the season.

Dec. 17. Ice on the river; passed with teams. 1822. March 6. Ice out of the river, boating commenced.

1822. March 6. Ice out of the river, boating commenced.

Dec. 16. River frozen over and boating ceased.

1823. April 2. Could pass the river on the ice.

April 3. Commenced boating.

Nov. 18. Passing on the ice; very cold fall.

Nov. 29. Teams passed the river on the ice.

1824. Feb. 4. Coldest day for the winter.

Feb. 10-11. A great thaw, and on the 12th the ice left the river and carried off Federal bridge.

March 10. First boating with the small boat.

Sept. 25. The first frost.

Nov. 3. Considered the coldest day ever known for the season, or time of the year.

Dec. 6. Last boating.

1825. March 7. Horses passing the river on the ice fell in.
March 18. Commenced boating.

June 22. The great day of Lafayette in Concord. The warmest and dryest summer for many years until the 12th of August, when commenced a great rain.

Nov. 23. People on foot passed the river on the ice.

Dec. 13. The coldest day ever known for the season.

Dec. 19. The ground all bare.

1826. Feb. 2. The first snow to make sledding.

Jan. 31. The coldest day for many years.

March 14. First boating.

April 11. The coldest day ever known at this season.

June. The season very warm and dry until the 24th of June, when a great rain commenced, and there fell four or five inches of water, followed by frequent and heavy showers, until the 30th of August, when the river rose twenty feet above low water mark, covering nearly all the interval, and on the 31st of August, the bank went off, and the house in danger.

1826. Sept. 2. Potatoes rotting in the ground and forty seven men digging potatoes this day at Sugar-Ball.

Sept. 8. There has not been a good hay day for four weeks. On the 15th of September the first North-west wind for five weeks.

Nov. 21. First snow, when there fell six inches.

Dec. 7. River frozen over and boating ceased.

1827. Jan. 1, 2, 3. Snowed for three days; there fell sixteen inches from the 1st. of January to the 20th of February: very cold, with numerous severe snow-storms, and the snow three to four feet deep.

March 23. Commenced boating, great rains, high winds and very backward spring; first sowing, May 10th; planted corn, 19th.

July 26. Great rain; six inches of water fell, but did not produce a great freshet.

Sept. 30. First frost.

Nov. 9, 10, 11. Three coldest days ever known at this time of the year; the river froze over; extremely cold month; not a pleasant day from the 13th to the 28th day; uninterrupted succession of cold N.W. wind for fifteen days.

- Nov. 24, 30. Rainy.
- Nov. 28. Passed the river on the ice with horses.
- Dec. 1. Ice went out of the river.
- Dec. 2. Boating, and continued until the 16th.
- Dec. 18. First snow to make sleighing—six inches.
- 1828. Moderate winter, with but little snow, but there were frequent thaws.
  - Feb. 19. A large rain—carried off all the snow; the ice went out of the river.
  - Sept. 6. Great freshet, the water covering the whole interval.
- 1829. Extremely cold for seven weeks—from January 1 to February 21, and but little snow; then there was a cold and severe storm, and sixteen inches of snow fell.
- 1831. Jan. 1. River fell to the top of the banks.
  - Dec. 2. Water covered the whole interval, and came within ten feet of the house.
  - June 5. More rain; cannot pass to the house without a boat.
  - June 6. A raft went down river, straight over the gulf.
- 1835. Nov. 20. First snow for the season.
- 1836. A cold winter; the snow four feet deep on a level, and no bare ground to be seen until the 15th of April.
  - March 31. The ice sufficiently strong to bear a horse team and two ton's load. Passing on the ice on foot as late as April 7.
- 1839. Jan. 26. Rained for twenty four hours; the river rose fifteen feet in fifteen hours; and came within three feet of the door-steps of the house, and to the top of the sills of the barn, which was occasioned by the river being dammed up by the ice. It carried off all the bridges on the river except Federal bridge, and that so damaged as to be impassable.
- 1841. Jan. 8. A great freshet; the water in the river rose fifteen feet, broke up the ice and carried off Federal bridge and Free bridge within about half an hour of each other; the river rose four feet in thirty minutes, and kept up so that we could not pass to the other house for four days.



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